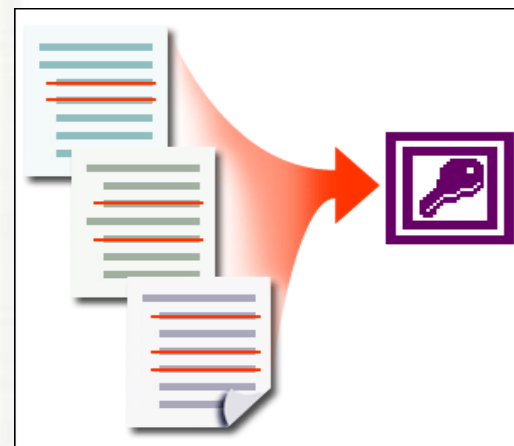


MS Access and Your Retention Program



Presented by SGM Bes

Objectives

- Define the basic components of a Relational Database Management System (RDBMS)
- Define the CSV File Format and the Delimited File Format
- Learn how to extract and save CSV file from the RETAIN system
- Learn how to create a basic retention database

Objectives

- Build Unit Identification Code Table
- Prepare Eligibility Roster Utilizing PERDB
- Build Reports



Why do I want a Retention Database?



- Use it to Answer a Business Question?
- Analyze my Eligible Numbers and Confirmed Reenlistments?
- Make my Commander like me?
- Provide proof that all the cool automation you have can actually do more than surf the Internet?

What do I want a Retention Database to do?

Import:

PERDB ADHOC
CONFIRMATIONS
ON ORDERS

Query for unknown UICs with LOCID

Append data as it comes in so no records are lost

Design query that shows total months in window at time of reenlistment--from date Soldier comes in window (ETS-2 years) until date of REUP

Design query that shows total months from BASD until Date of REUP

Design query that shows AGE by TERM at date Soldier comes in window (ETS-2 years)

Design query that shows GT Average

Design query that shows Soldiers on orders and the total months between report date and ETS

Design query that shows ERUP Codes with a *A as the second character in FLAG 1

Produce the following reports:

Eligibles by UNIT for a given period

FY Eligibles by UNIT for a given period

Confirmation of reenlistments by unit

ERUP/FLAG Report by unit

On Orders Report by unit with the total days on report and number of months between report date and ETS

ERUP Codes with a *A as the second character in FLAG 1

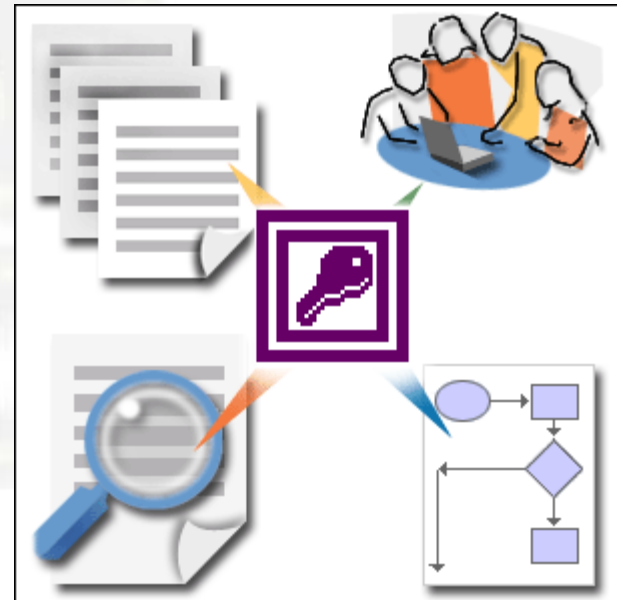
Components of a Relational database

- What is data?
 - Data is raw facts; that is, facts that have not yet been processed to reveal their meaning to the end user. For example; 2007/01/15, 2008/03/12, 2009/06/12, 2010/03/12, 9G, AA, YY, 92G20, 750.
- What is information?
 - Facts (data) that are arranged in meaningful patterns. Information consists of *transformed* data that is analyzed and facilitates decision making. For example; How many Soldiers are coded "9Z" in I Corps?

How can we tie all this together? By creating and using a DATA

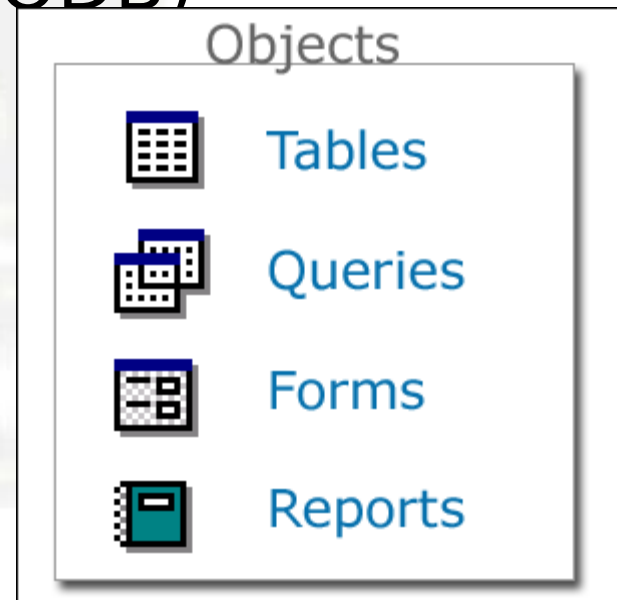
Components of a Relational database

- What is a database?
 - The term database describes a collection of data organized in a manner that allows:
 - ✓ Access
 - ✓ Retrieval
 - ✓ Use of the data



Components of a Relational database

- What is an Object?
 - **Objects** are the most important parts of a database. Access is an Object Oriented Database (OODB)



Components of a Relational database

- What is a table?
 - **Tables** organize your data. Tables are the main building block of every database. All databases in Access contain at least one table.

The image displays three overlapping table views from a Microsoft Access database. The 'Products' table is the largest and is partially obscured by the 'Categories' table. The 'Categories' table is partially obscured by the 'Shippers' table. Each table has a blue header bar with a grid icon and the table name.

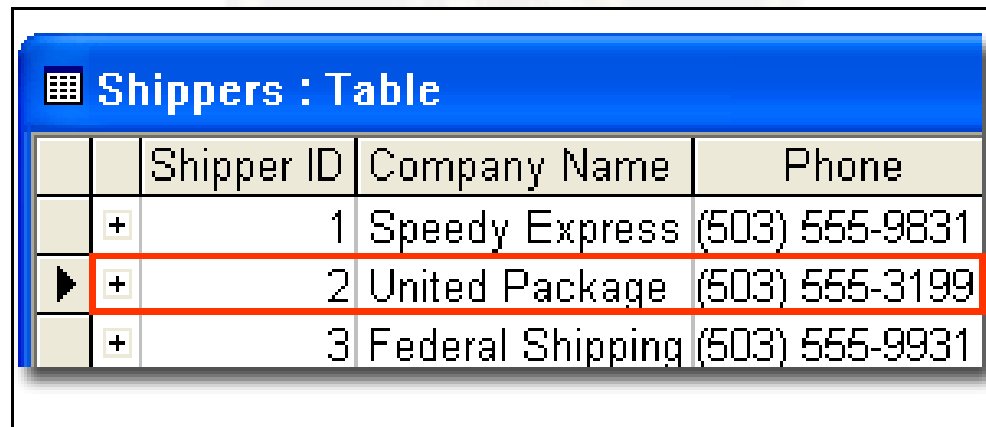
Product Name	Category	Unit
Chai	Beverage	\$18
Chamomile		
Aniseed		
Cherries		
Chocolate		
Grandma's		
Uncle		

Category Name	Description
Beverages	Soft drinks,
Condiments	Sweet and
Confections	
Dairy	
Grains	
Meat/	
Produce	

Company Name
+ Speedy Express
+ United Package
+ Federal Shipping

Components of a Relational database

- What is a record?
 - The rows in a table are called records. A record contains information about a given person, product, or event.

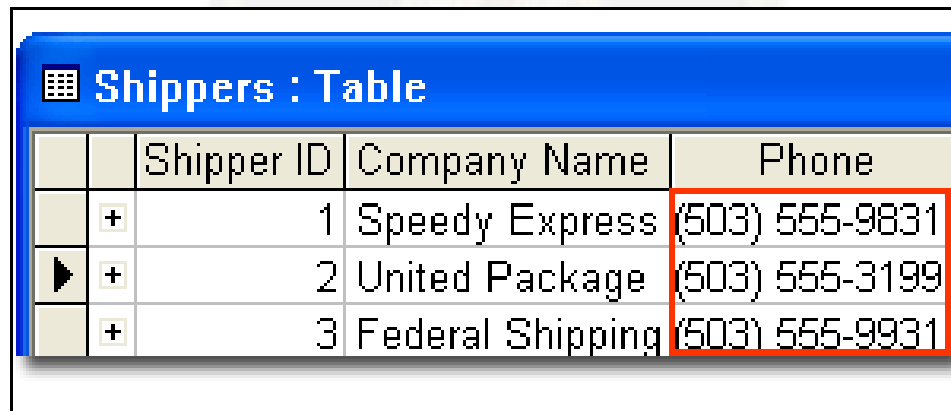


		Shipper ID	Company Name	Phone
	+	1	Speedy Express	(503) 555-9831
▶	+	2	United Package	(503) 555-3199
	+	3	Federal Shipping	(503) 555-9931

The row containing information about United Package is a **record**.

Components of a Relational database

- What is a field?
 - The columns in the table are called fields. A field contains a specific piece of information within a record.

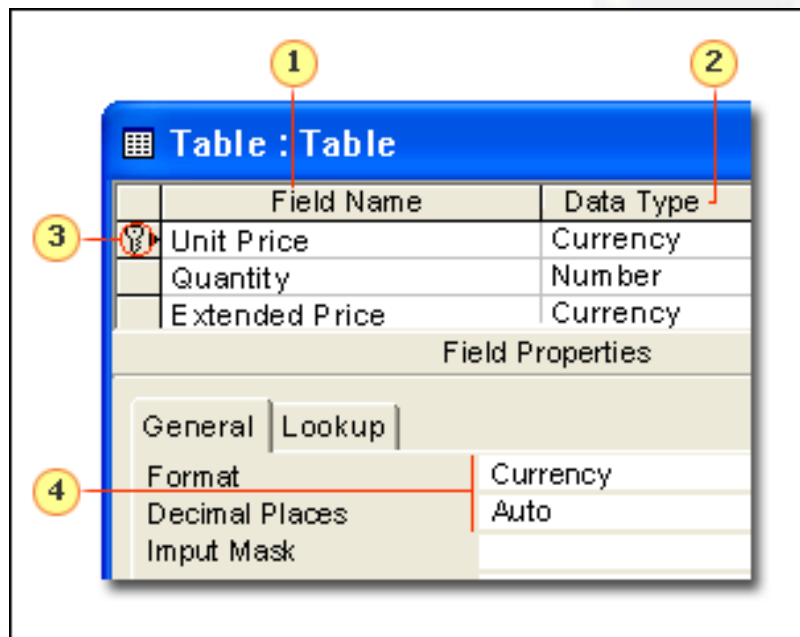


		Shipper ID	Company Name	Phone
	+	1	Speedy Express	(503) 555-9831
▶	+	2	United Package	(503) 555-3199
	+	3	Federal Shipping	(503) 555-9931

The column containing phone numbers is a **field**.

Components of a Relational database

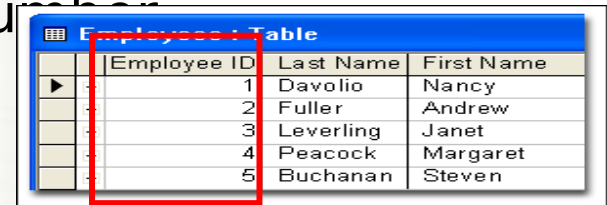
- What is a data type?
 - The type of information that can be stored in a field. For example; Text, Number, or Currency.



- 1 If an existing field name isn't descriptive enough, you can rename the field.
- 2 A field's data type limits and describes the kind of information you can enter in a field, such as Number or Currency.
- 3 You use a unique identifier, called a primary key, for each record in your table
- 4 Field properties are a set of characteristics that provide additional control over the data.

Components of a Relational database

- What is a Primary Key?
 - One or more fields that make a record unique. For example, a Soldier's social security number.



Employee ID	Last Name	First Name
1	Davolio	Nancy
2	Fuller	Andrew
3	Leverling	Janet
4	Peacock	Margaret
5	Buchanan	Steven

- ✓ Each record in each table should be **unique**
- ✓ To distinguish one record from another, tables can contain a **primary key** field.
- ✓ The primary key is an **identifier**—such as an SSN or a UIC—that's unique to each record.
- ✓ The primary key **should** be a piece of information that won't change frequently.

***Access can assign a numeric primary key that increases by 1 each time you add a record to a table.

Components of a Relational database

- What is a Relationship?
 - **Relationships** link data from individual tables to increase the usefulness of the data.



Definitions

- Comma Separated Values (CSV)
 - In computers, a CSV file contains the values in a table as a series of **ASCII** text lines organized so that each column value is separated by a comma from the next column's value and each row starts a new line. Here's an example:
 - Doe,John,944-7077
 - Johnson,Mary,370-3920
 - Smith,Abigail,299-3958 (etc.)

ASCII Art

```

/      HAIR CLUB      \
1      FOR MEN      1
1  :::::::::::  1
1  []  /^\  []  1
1      1  1      1
      /  /
-----
      ^  ^
-----

```

$$\frac{1}{\sqrt{1 + \left(\frac{\partial f}{\partial x}\right)^2}} = \frac{1}{\sqrt{1 + \left(\frac{\partial f}{\partial y}\right)^2}}$$

T,,, (o) (o)

EXTREME GEEK FACT

ASCII = American Standard Code for Information Interchange. Standard 8 bit code used in data communications. Many files interchanged from one software program to another and from IBM to Mac formats go through translation into ASCII.

Definitions

- Delimited Format
 - A Delimited file is an ASCII text file in which each record ends with a carriage return and line feed. The default field separator is a comma. Since character data may include commas, character fields are additionally delimited with double quotation marks.
- Delimiter
 - A delimiter can be a comma, space, tab, semicolon, or some other symbol chosen by the user.

How to extract a CSV file from RETAIN

- Step 1:
 - Log on to RETAIN



The image shows a login dialog box for the RETAIN system. It features a blue square icon with a white eagle and the words 'OPERATIONAL SUPPORT' on the left. To the right, the word 'Retain' is written in a large, bold, serif font, with 'in the membrane' in a smaller font below it, and 'Version 5.1' below that. The login fields include 'User ID:' with a text box, 'Password:' with a text box, and 'Database:' with a dropdown menu showing 'LIVE'. There are 'OK' and 'Cancel' buttons to the right of the fields. At the bottom, a status bar reads 'SGM GET OUT OF RETAIN...OPS BUSINESS'.

Retain
in the membrane
Version 5.1

User ID:

Password:

Database:

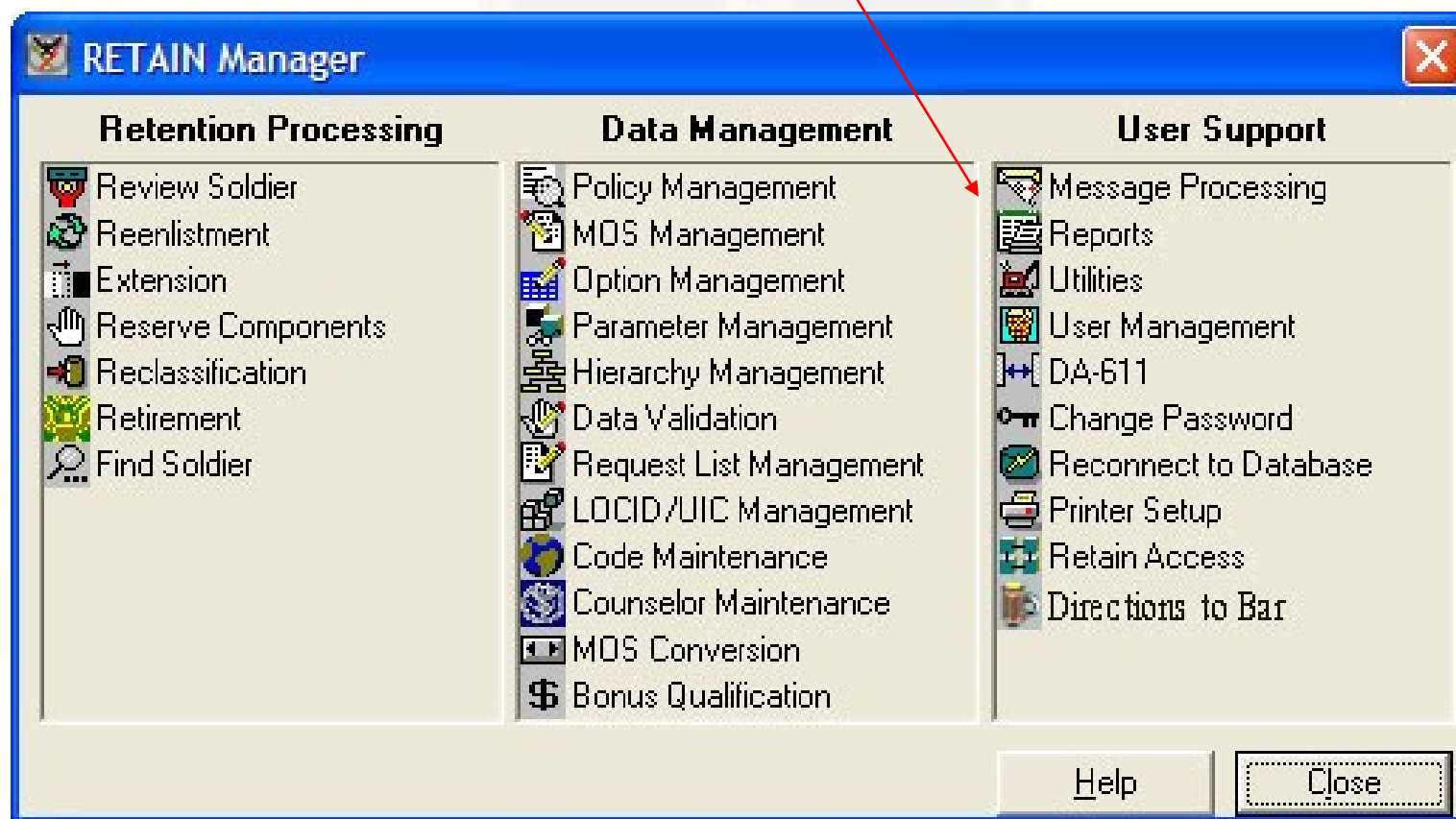
OK

Cancel

SGM GET OUT OF RETAIN...OPS BUSINESS

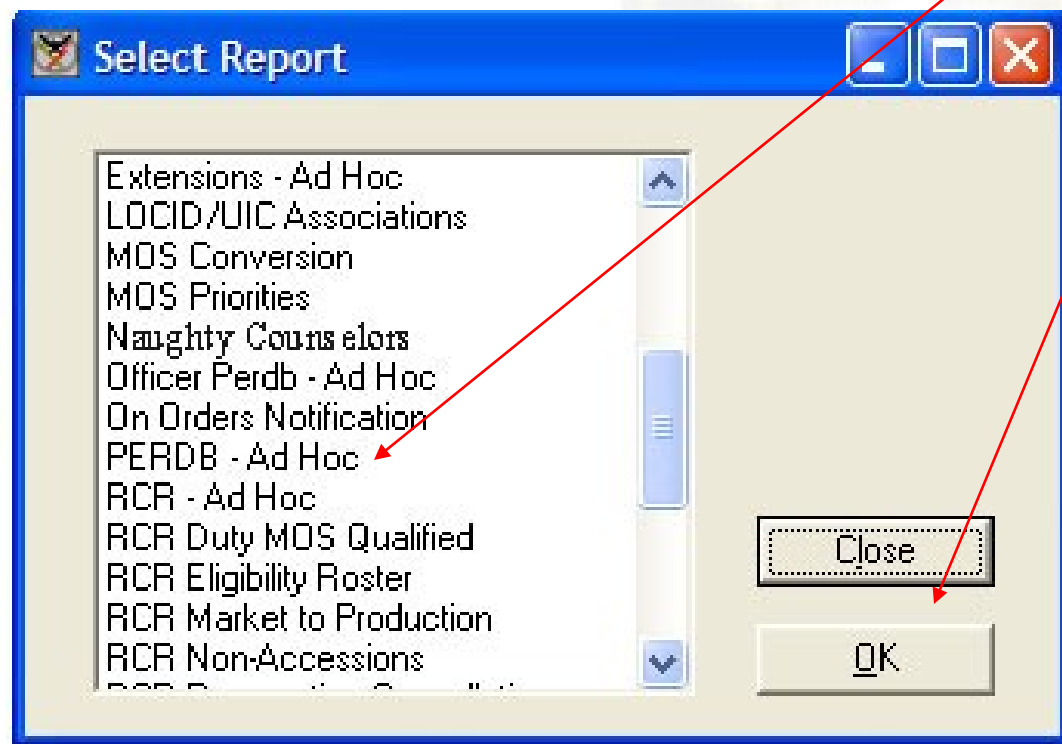
How to extract a CSV file from RETAIN

- Step 2:
 - Select Reports



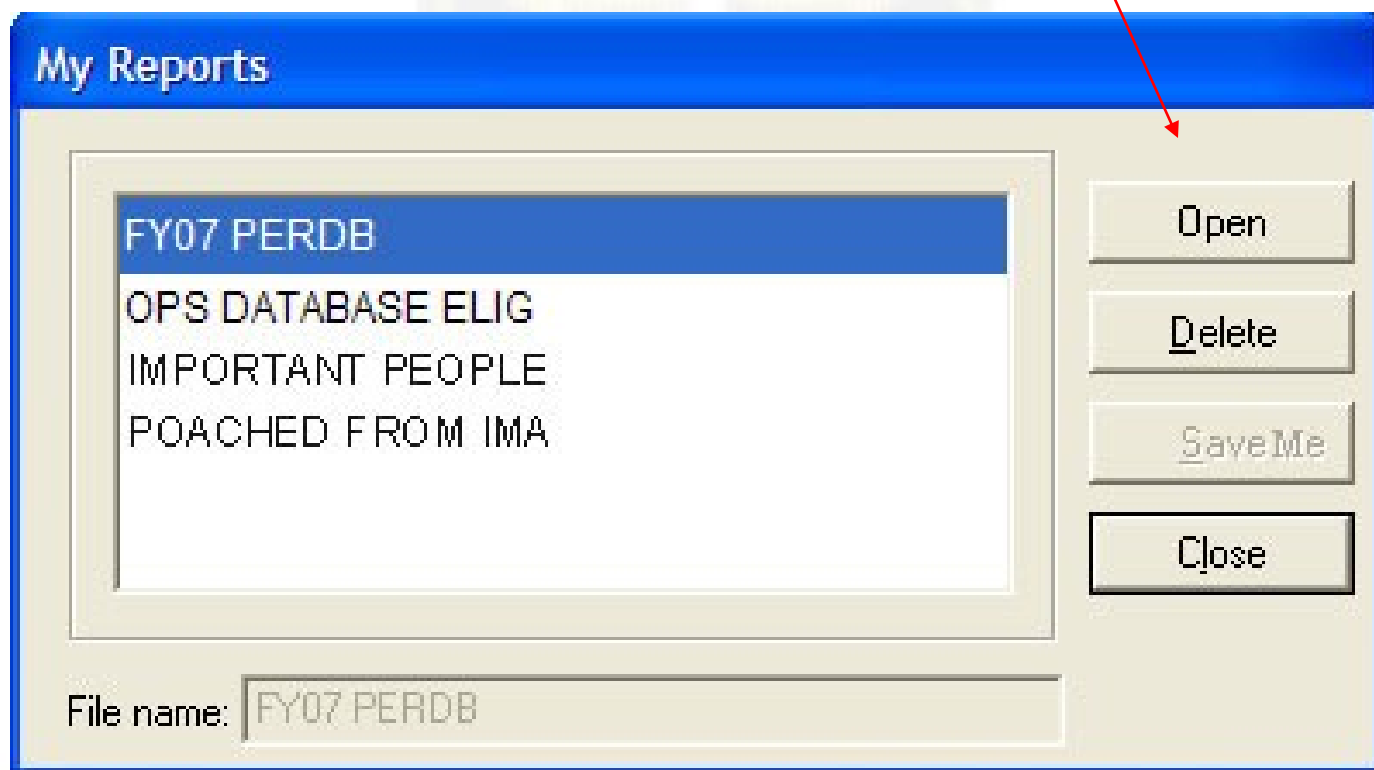
How to extract a CSV file from RETAIN

- Step 3:
 - Select PERDB-Ad Hoc
 - Click OK



How to extract a CSV file from RETAIN

- Step 4:
 - Click Open



How to extract a CSV file from RETAIN

PERDB Ad Hoc -- FY07 PERDB

ETS Range
Start Date: 20061001 End Date: 20100930

☐ MACOM first letter
☐ MACOM

Data Selection

AEA_CODE
AEA_TERM
AFQT
AP
APFT
APFT_DATE
ASCO_1
ASCO_2
ASCO_3
ASI_1
BASD
BONUS_DATE
BUY VANILLA ICE CD

>>
<<

☐ Select All

Data Display

☐ Select All

Search Clear My Reports Close

- Step 5:
 - Enter your ETS range
 - Check "Select All" box
 - Click the transfer button

>>

How to extract a CSV file from RETAIN

- Step 5A
 - Click "search"

PERDB Ad Hoc -- FY07 PERDB

ETS Range
Start Date: 20061001 End Date: 20100930

☐ MACOM first letter
☐ MACOM

Data Selection

Data Display

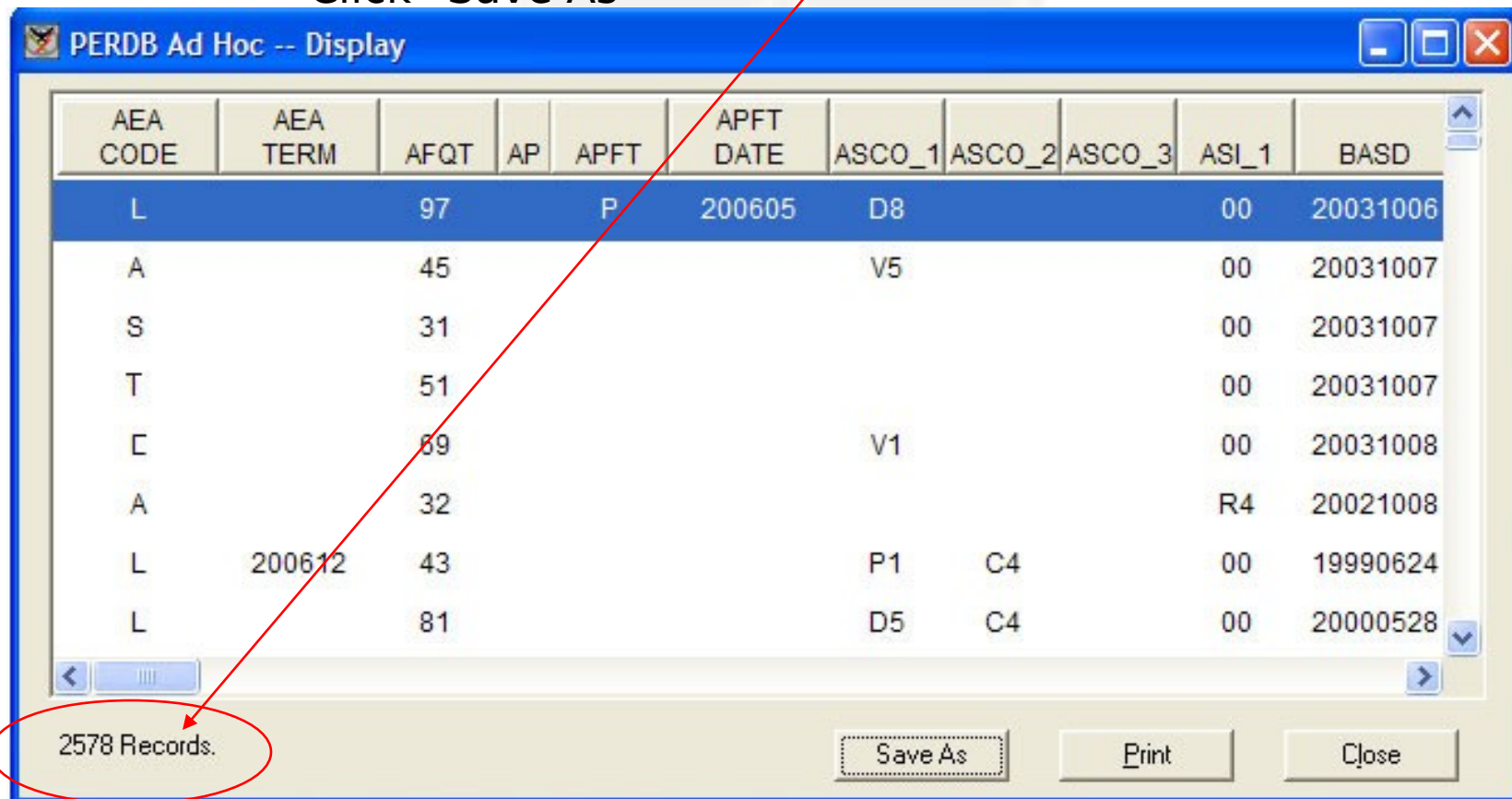
AEA_CODE
AEA_TERM
AFQT
AP
APFT
APFT_DATE
ASCO_1
ASCO_2
ASCO_3
ASI_1
BASD
BONUS DATE
BUY VANILLA ICE CD

☐ Select All ☐ Select All

Search Clear My Reports Close

How to extract a CSV file from RETAIN

- Step 6:
 - Review the total number of records retrieved
 - Click "Save As"



PERDB Ad Hoc -- Display

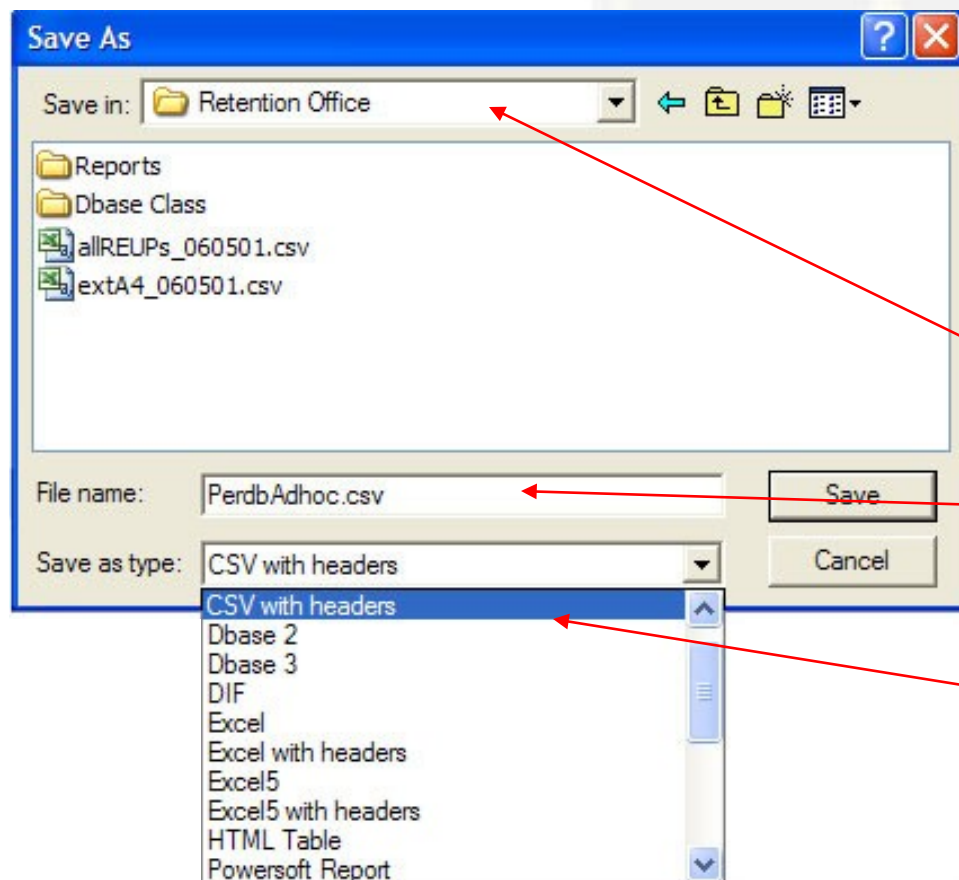
AEA CODE	AEA TERM	AFQT	AP	APFT	APFT DATE	ASCO_1	ASCO_2	ASCO_3	ASI_1	BASD
L		97		P	200605	D8			00	20031006
A		45				V5			00	20031007
S		31							00	20031007
T		51							00	20031007
E		69				V1			00	20031008
A		32							R4	20021008
L	200612	43				P1	C4		00	19990624
L		81				D5	C4		00	20000528

2578 Records.

Save As Print Close

How to extract a CSV file from RETAIN

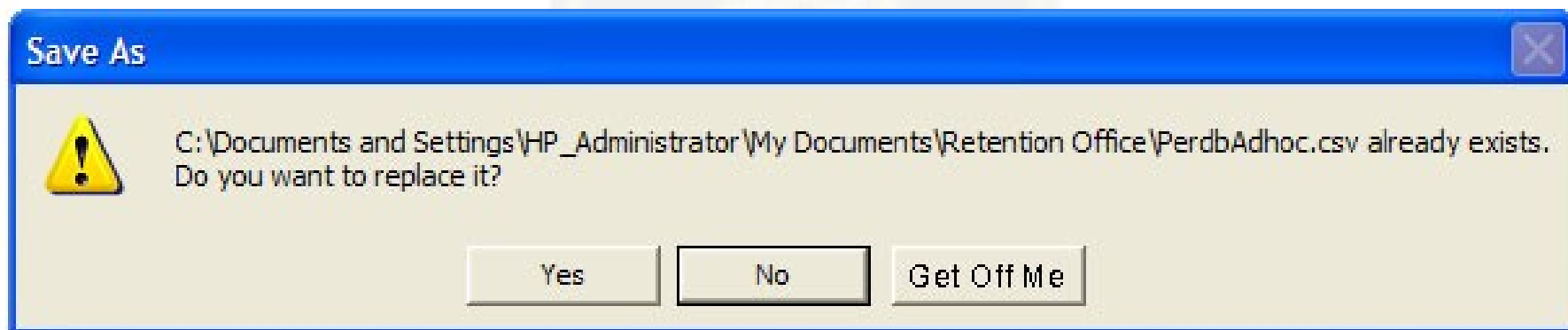
- Step 7:



- Create a folder in your hard drive to store the file you are extracting from the RETAIN system (i.e Retention Office)
- Name your file PerdbAdhoc
- Select "CSV with headers" from the Save as type

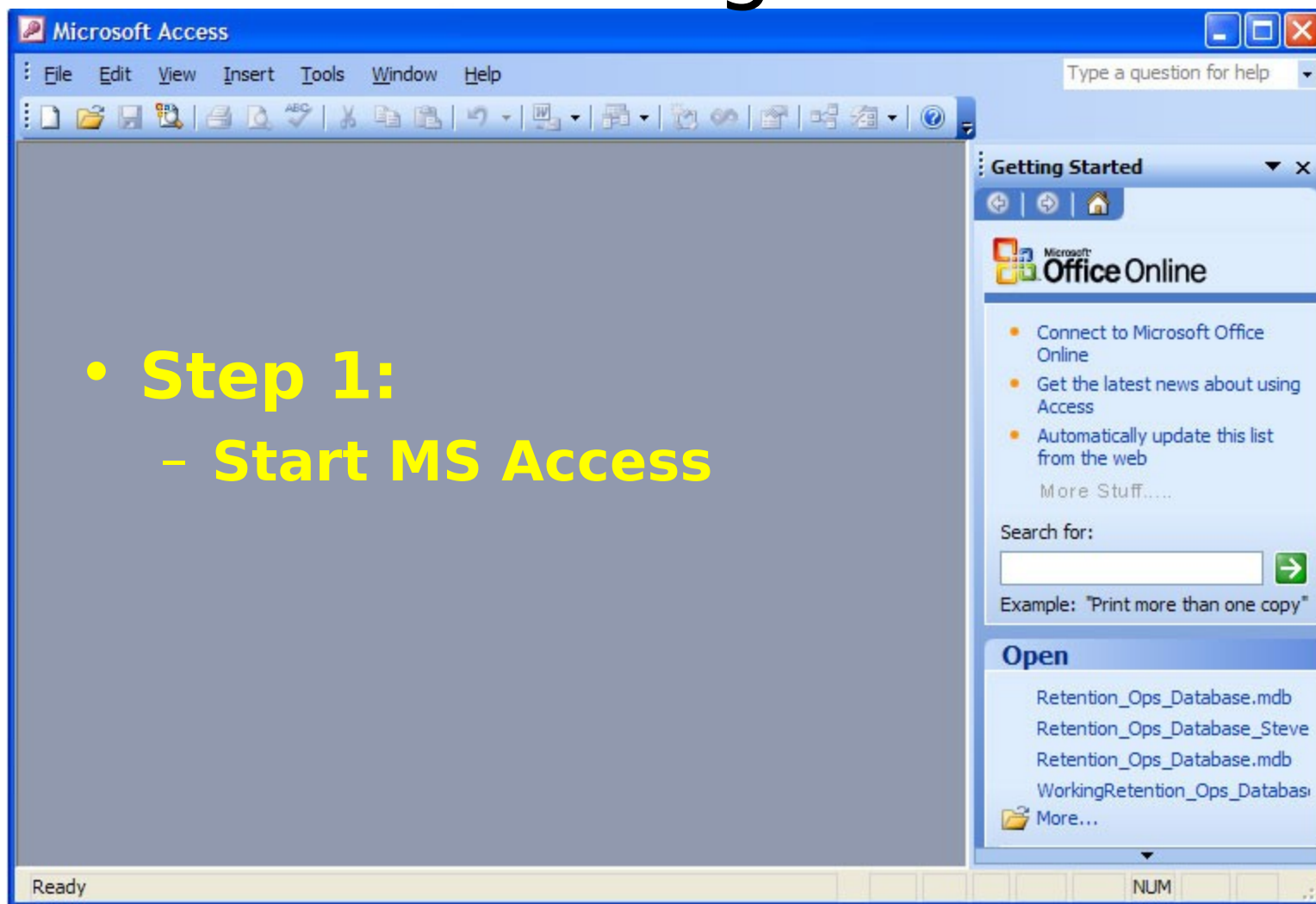
How to extract a CSV file from RETAIN

- Step 7b:
 - You will get this warning if you are about to overwrite a file in your folder.



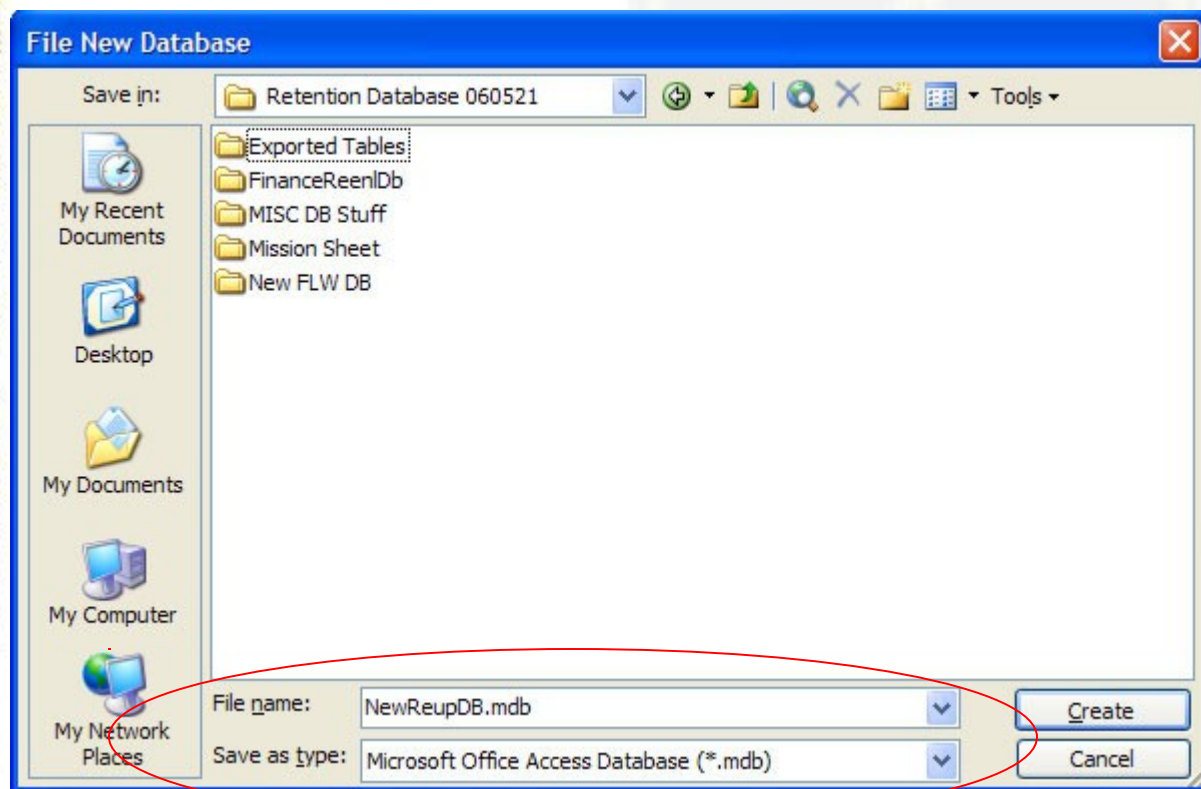
Create a Basic Retention Database Using MS Access

- **Step 1:**
 - **Start MS Access**



Create a Basic Retention Database Using MS Access

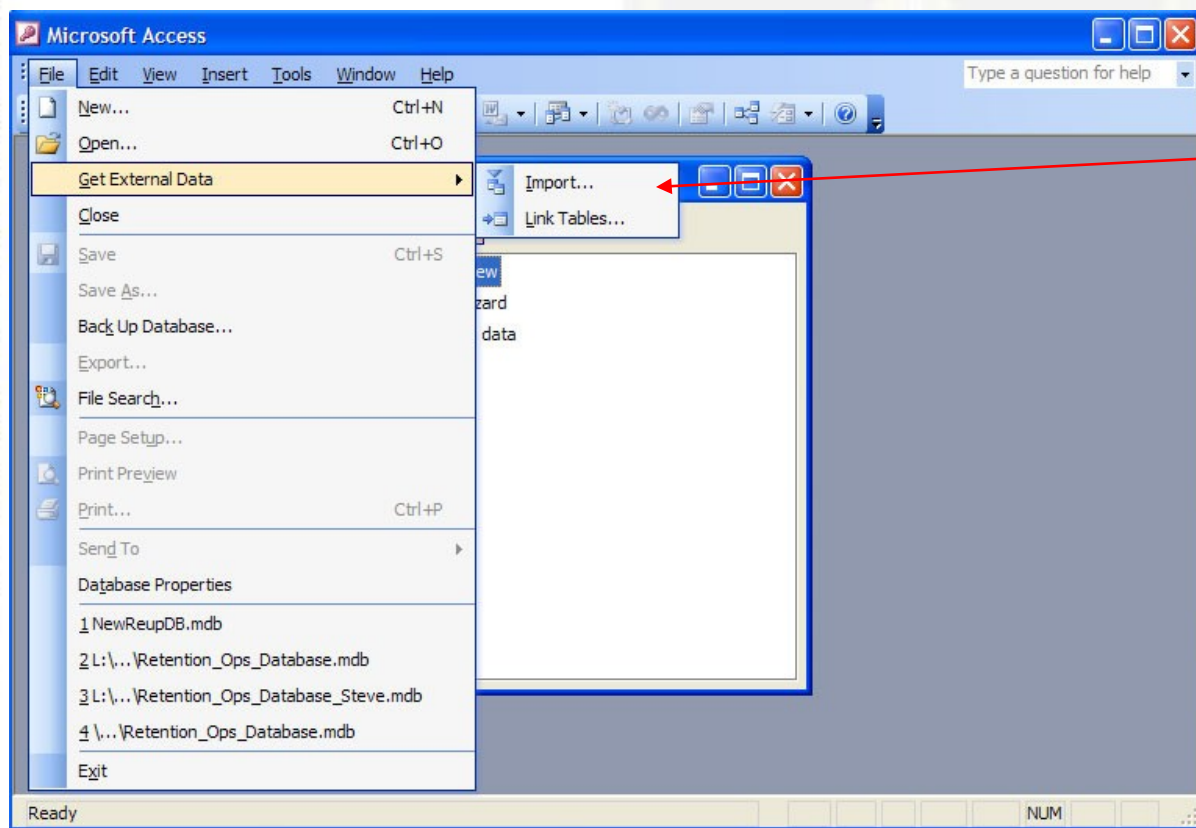
- Step 2:



- Go to File>New>Database
- Save your new database
- Ensure that your extension is **.mdb**
- The new database is named **NewReupDB**

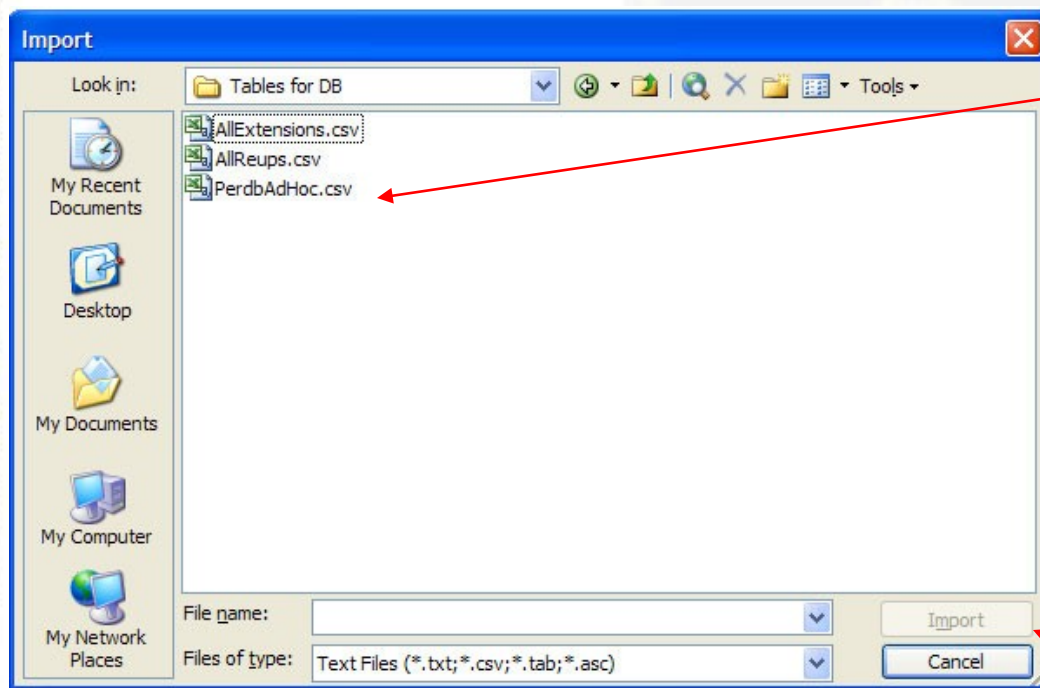
Create a Basic Retention Database Using MS Access

- Step 3:
 - Import your CSV file
 - Click File>Get External data>**Import...**



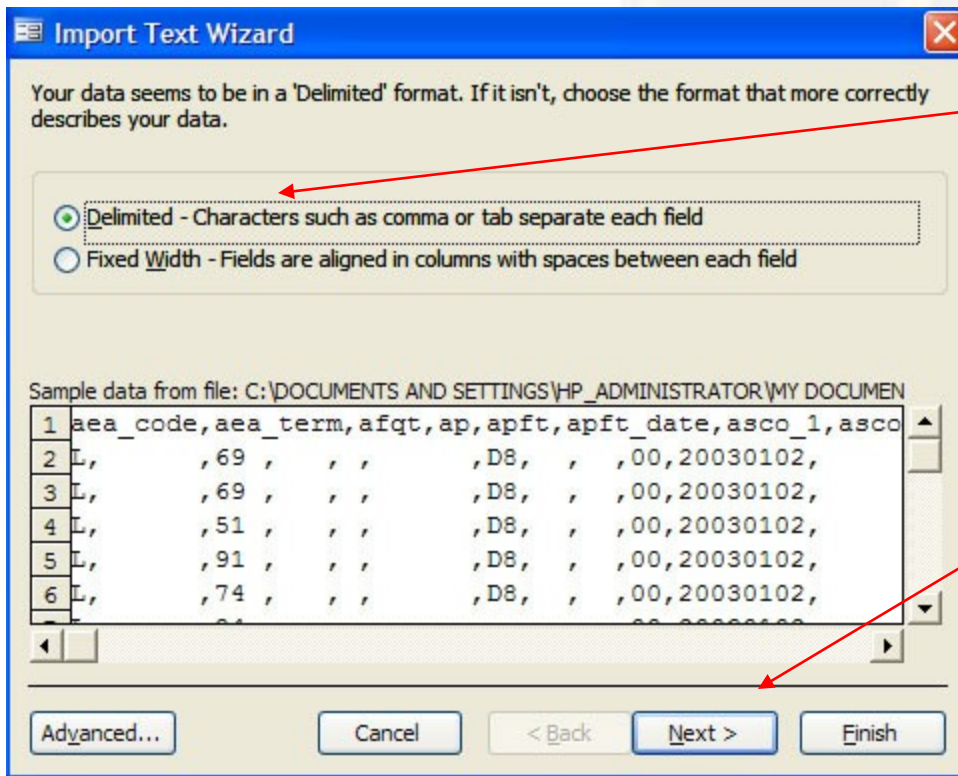
Create a Basic Retention Database Using MS Access

- Step 4:
 - Locate your PerdbAdhoc.csv file
 - Initially you will not see any files in your folder, because MS Access is searching for ***.mdb** files. Therefore, you must switch your file type to "Text files"
 - Select your "PerdbAdHoc.csv" file
 - Click import



Create a Basic Retention Database Using MS Access

- Step 6:
 - Select the "Delimited" format and click "Next"



Create a Basic Retention Database Using MS Access

- Step 7:
 - Select "First Row Contains Field Names"
 - Change your Text Qualifier to quotes
 - Click "Next"

What delimiter separates your fields? Select the appropriate delimiter and see how your text is affected in the preview below.

Choose the delimiter that separates your fields:

☐ Tab ☐ Semicolon ☒ Comma ☐ Space ☐ Other:

☒ First Row Contains Field Names Text Qualifier:

aea code	aea term	afqt	ap	apft	apft date	asco 1	asco
		69				D8	
		69				D8	
		51				D8	
		91				D8	
		74				D8	
		84					

Advanced... Cancel < Back Next > Finish

Create a Basic Retention Database Using MS Access

- Steps 8:
 - Select "In a New Table"
 - Click "Next"

Import Text Wizard

You can store your data in a new table or in an existing table.

Where would you like to store your data?

☒ In a New Table

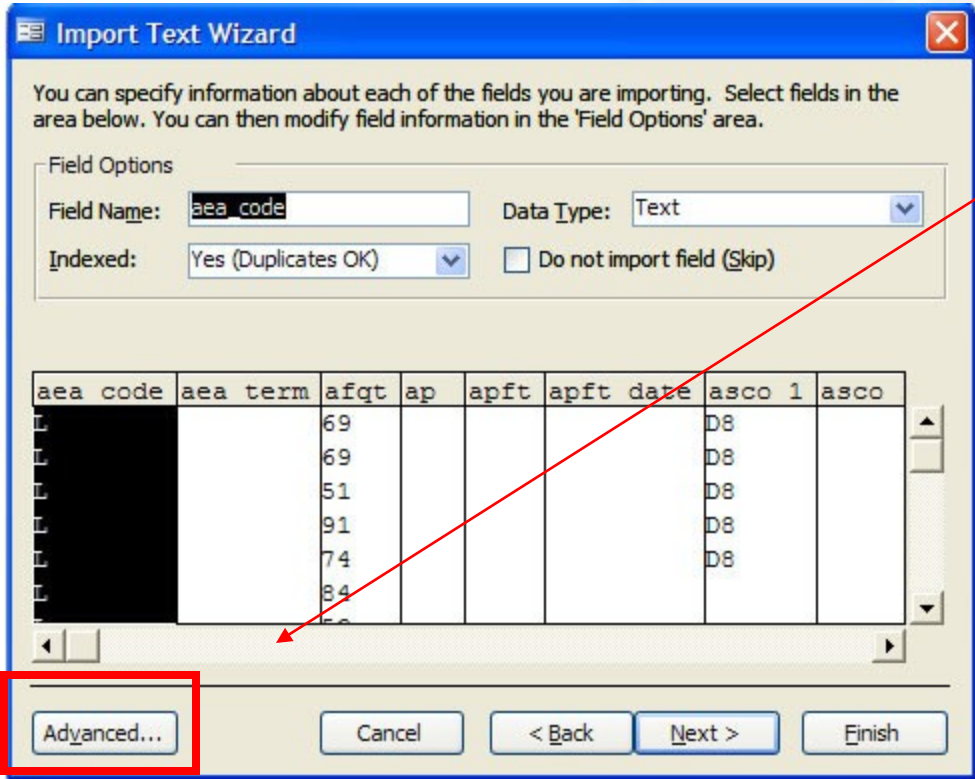
☐ In an Existing Table:

aea code	aea term	afqt	ap	apft	apft date	asco 1	asco
		69				D8	
		69				D8	
		51				D8	
		91				D8	
		74				D8	
		84				D8	

Advanced... Cancel < Back Next > Finish

Create a Basic Retention Database Using MS Access

- Step 9:
 - “Click the “Advanced...” button to create your import specifications.



Import Text Wizard

You can specify information about each of the fields you are importing. Select fields in the area below. You can then modify field information in the 'Field Options' area.

Field Options

Field Name: Data Type:

Indexed: ☐ Do not import field (Skip)

aea_code	aea_term	afqt	ap	apft	apft_date	asco_1	asco
		69				D8	
		69				D8	
		51				D8	
		91				D8	
		74				D8	
		84					

Advanced... Cancel < Back Next > Finish

Create a Basic Retention Database Using MS Access

- Step 10:
 - In this step you will update your “Import Specifications” to ensure that your fields are imported in the correct format.

PerdbAdHoc Import Specification

File Format: ☒ Delimited ☐ Fixed Width

Field Delimiter: ,

Text Qualifier: "

Language: English

Code Page: OEM United States

OK Cancel Save As... Specs...

Dates, Times, and Numbers

Date Order: MDY

Four Digit Years ☒

Leading Zeros in Dates ☐

Date Delimiter: /

Time Delimiter: :

Decimal Symbol: .

Field Information:

Field Name	Data Type	Indexed	Skip
apft	Text	No	☐
apft_date	Text	No	☐
asco_1	Text	No	☐
asco_2	Text	No	☐
asco_3	Text	No	☐
asi_1	Text	No	☐
basd	Long Integer	No	☐
bonus_date	Text	No	☐

Create a Basic Retention Database Using MS Access

IMPORTANT DATA TYPES

The screenshot shows the 'PerdbAdHoc Import Specification' dialog box. It has several sections: 'File Format' with 'Delimited' selected, 'Language' set to 'English', and 'Code Page' set to 'OEM United States'. The 'Dates, Times, and Numbers' section has 'Date Order' set to 'MDY', 'Date Delimiter' as '/', 'Time Delimiter' as ':', and 'Four Digit Years' checked. The 'Field Information' section contains a table with the following data:

Field Name	Data Type	Indexed	Skip
apft	Text	No	☐
apft_date	Text	No	☐
asco_1	Text	No	☐
asco_2	Text	No	☐
asco_3	Text	No	☐
asi_1	Text	No	☐
basd	Long Integer	No	☐
bonus_date	Text	No	☐

Text

Use for text or combinations of text and numbers, such as addresses, or for numbers that do not require calculations, such as phone numbers, part numbers, or postal codes. Stores up to 255 characters.

Date/Time

Use for dates and times

Create a Basic Retention Database Using MS Access

PerdbAdhoc Import Specification

File Format: ☒ Delimited ☐ Fixed Width

Field Delimiter: , Text Qualifier: "

Language: English Code Page: OEM United States

Dates, Times, and Numbers

Date Order: MDY Four Digit Years ☒ Leading Zeros in Dates ☐ Decimal Symbol: .

Date Delimiter: / Time Delimiter: :

Field Information:

Field Name	Data Type	Indexed	Skip
asco_2	Text	No	☐
asco_3	Text	No	☐
asi_1	Text	No	☐
basd	Date/Time	No	☐
bonus_date	Currency	No	☐
bonus_mos	Single	No	☐
cit	Double	No	☐
city	Date/Time	No	☐
	Text	No	☐
	OLE Object	No	☐
	Memo	No	☐
	Hyperlink	No	☐

- Step 10a:
 - Update all fields that are formatted incorrectly such as Dates (i.e. BASD or PEBD) and Soldier SSN

Create a Basic Retention Database Using MS Access

- Step 10b:
 - Update your “Date, Times and Numbers” options:
 - Date Order—YMD
 - Date Delimiter—
remove the “/”
 - Time Delimiter—
remove the “:”

PerdbAdhoc Import Specification

File Format: ☒ Delimited ☐ Fixed Width
Field Delimiter: ,
Text Qualifier: "
Language: English
Code Page: OEM United States

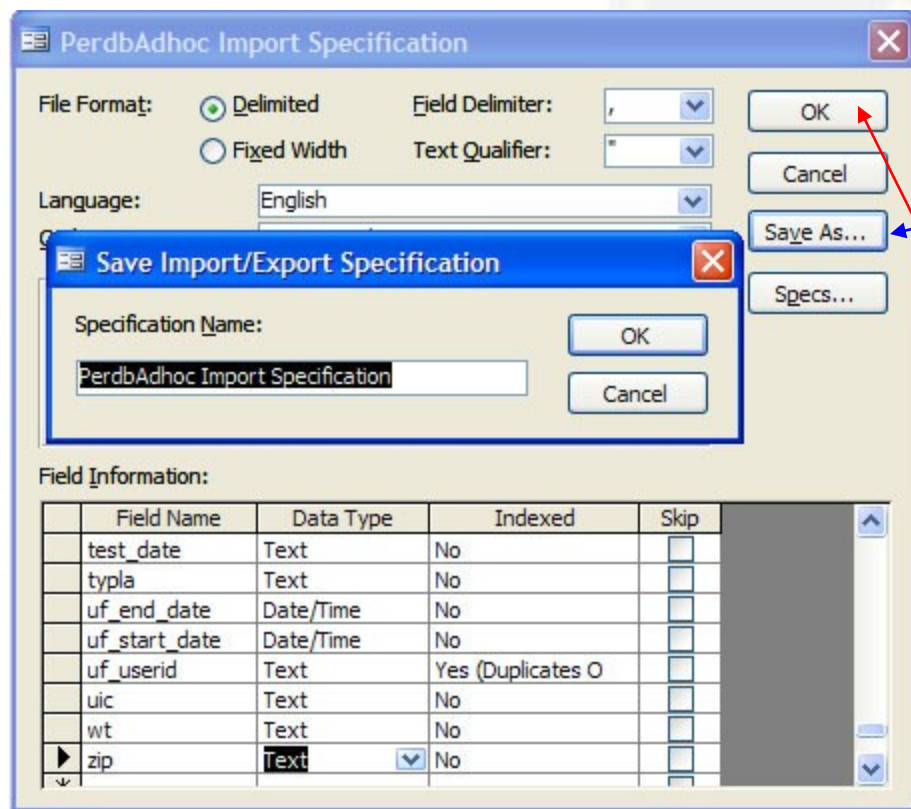
Dates, Times, and Numbers

Date Order: YMD
Date Delimiter:
Time Delimiter:
Four Digit Years: ☒
Leading Zeros in Dates: ☐
Decimal Symbol: .

Field Information:

	Field Name	Data Type	Indexed	Skip
	aea_code	Text	Yes (Duplicates O	☐
	aea_term	Text	No	☐
	afqt	Text	No	☐
	ap	Text	No	☐
	apft	Text	No	☐
	apft_date	Text	No	☐
	asco_1	Text	No	☐
	asco_2	Text	No	☐

Create a Basic Retention Database Using MS Access



- Step 11:
 - Save your "Import Specifications" by clicking the "Save as..." button and then clicking the "OK" button.
 - Click "OK" again.
 - Once you save your specifications you will be sent back to the Import Wizard

Create a Basic Retention Database Using MS Access

- Step 12:
 - Click the “Next” button

Import Text Wizard

You can specify information about each of the fields you are importing. Select fields in the area below. You can then modify field information in the 'Field Options' area.

Field Options

Field Name: Data Type:

Indexed: ☐ Do not import field (Skip)

aea_code	aea_term	afqt	ap	apft	apft_date	asco_1	asco
		97		P	200605	D8	
		45				V5	
		31					
		51					
		69				V1	
		32					

Advanced... Cancel < Back Next > Finish

Create a Basic Retention Database Using MS Access

- Step 13:
 - Select "Choose my own primary key" and find the "soldier_ssn" field
 - Once the soldier_ssn is in the text box click "Next"

Import Text Wizard

Microsoft Access recommends that you define a primary key for your new table. A primary key is used to uniquely identify each record in your table. It allows you to retrieve data more quickly.

☐ Let Access add primary key.

☒ Choose my own primary key.

☐ No primary key.

soldier_ssn
soldier_ssn
soldier_street_1
soldier_street_2
spouse_ssn
sqi_1
sqt
sqt_date
sqt_mos

aea code	aea term	afqt	ap	apft	apft d
		97		P	200605
		45			
		31			
		51			
		69			
		32			

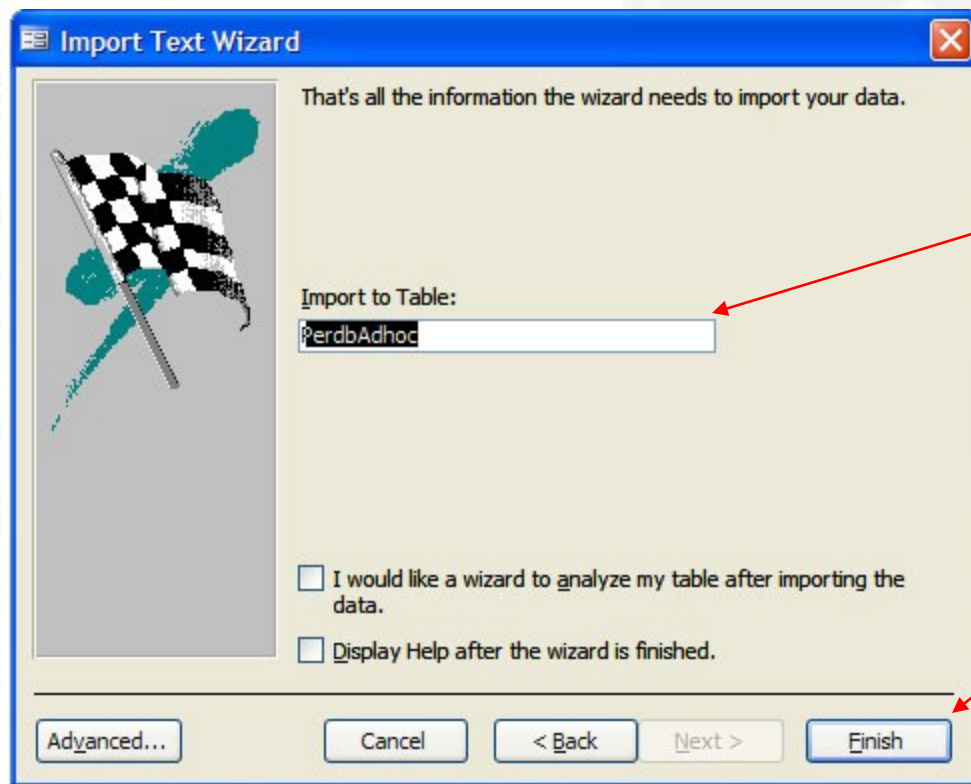
V1

Advanced... Cancel < Back Next > Finish

Create a Basic Retention Database Using MS Access

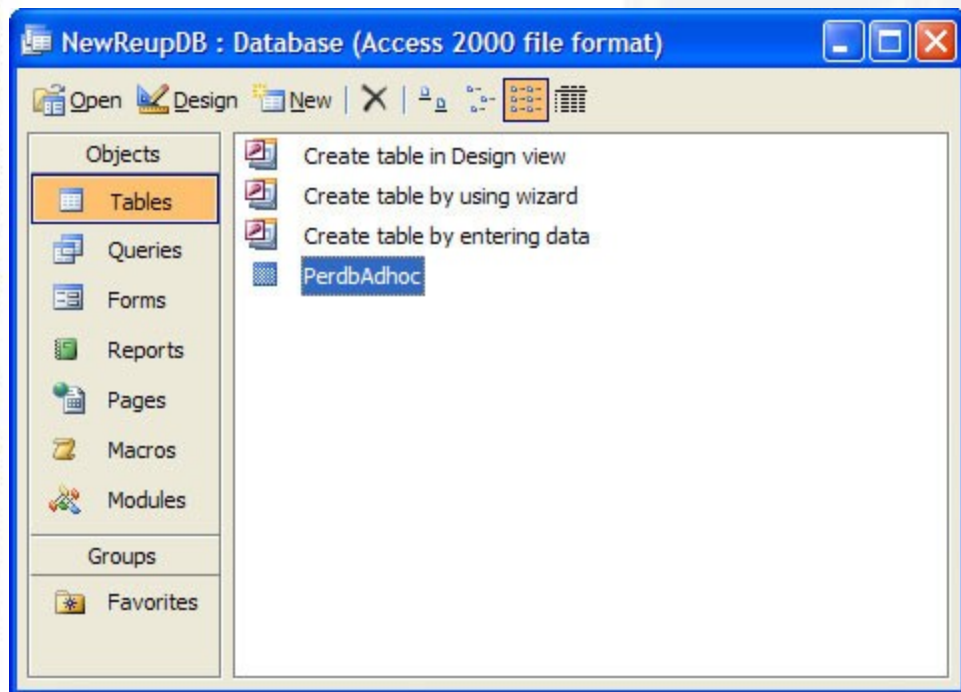
- Step 14:

- In the text box enter the name of your table
"PerdbAdHoc"
- Click the "Finish" button to finalize the import process



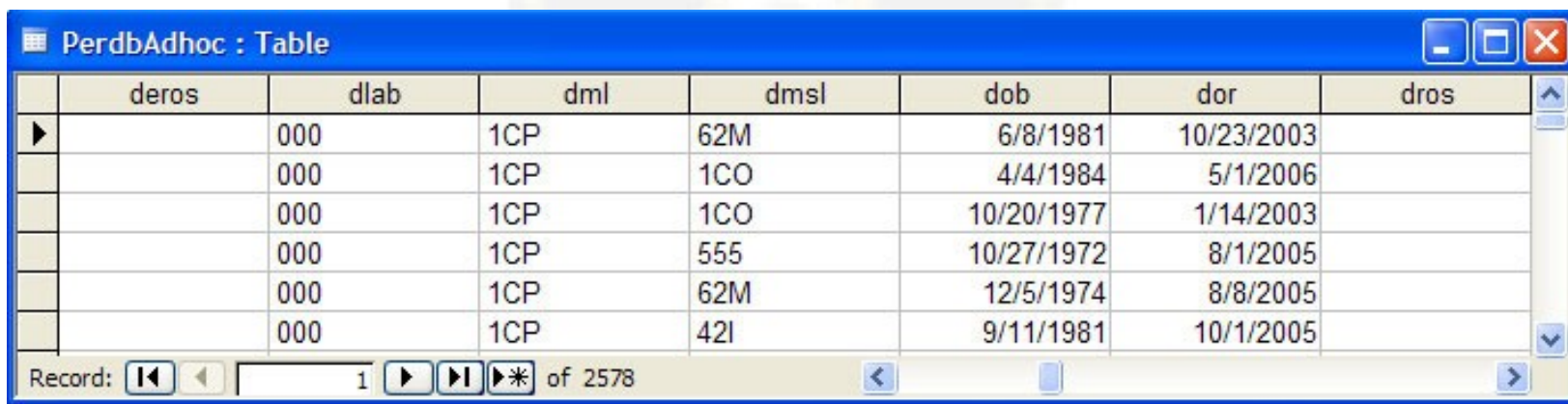
Create a Basic Retention Database Using MS Access

- Step 15:
 - Review the results of the import process:
 - Table
 - Data formatted the way you intended
 - Primary key established
 - Errors
 - Import Errors



Create a Basic Retention Database Using MS Access

- Step 16:
 - Review your table to ensure that:
 - The number of records imported (2578) agrees with the number of records that were extracted from the RETAIN system.
 - Check that your date and Social Security Number field were imported correctly.



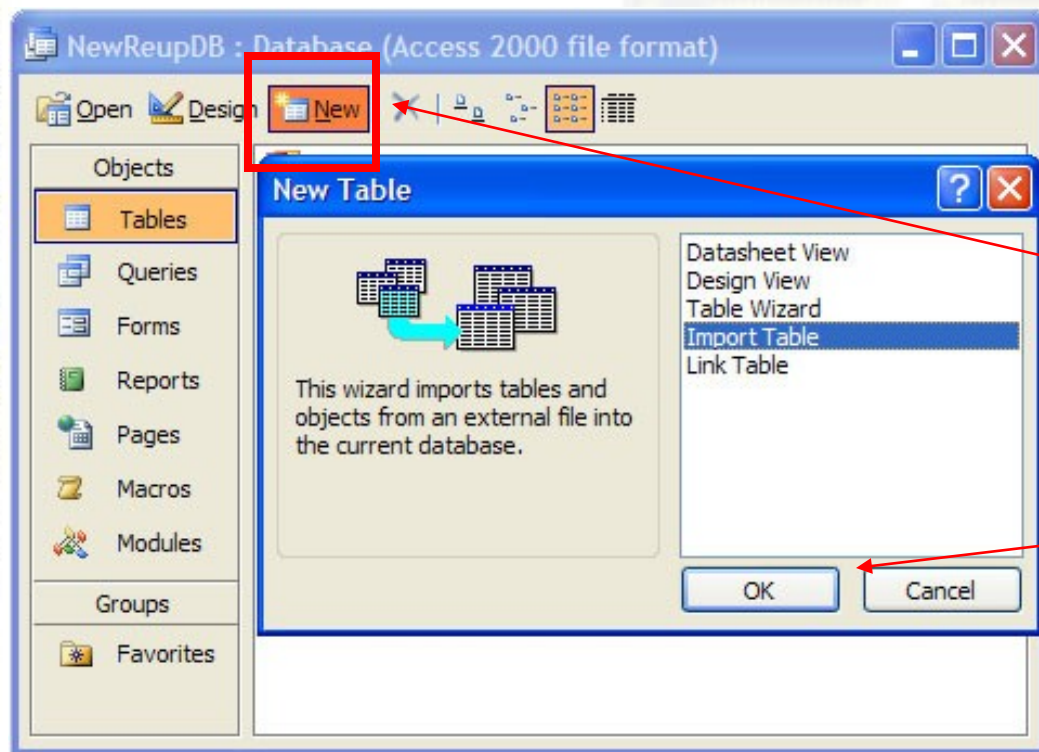
	deros	dlab	dml	dmsl	dob	dor	dros
▶		000	1CP	62M	6/8/1981	10/23/2003	
		000	1CP	1CO	4/4/1984	5/1/2006	
		000	1CP	1CO	10/20/1977	1/14/2003	
		000	1CP	555	10/27/1972	8/1/2005	
		000	1CP	62M	12/5/1974	8/8/2005	
		000	1CP	42I	9/11/1981	10/1/2005	

Record: 1 of 2578

- Step 16a :
 - Review your import errors if any.

Create a Basic Retention Database Using MS Access

Create UIC Table

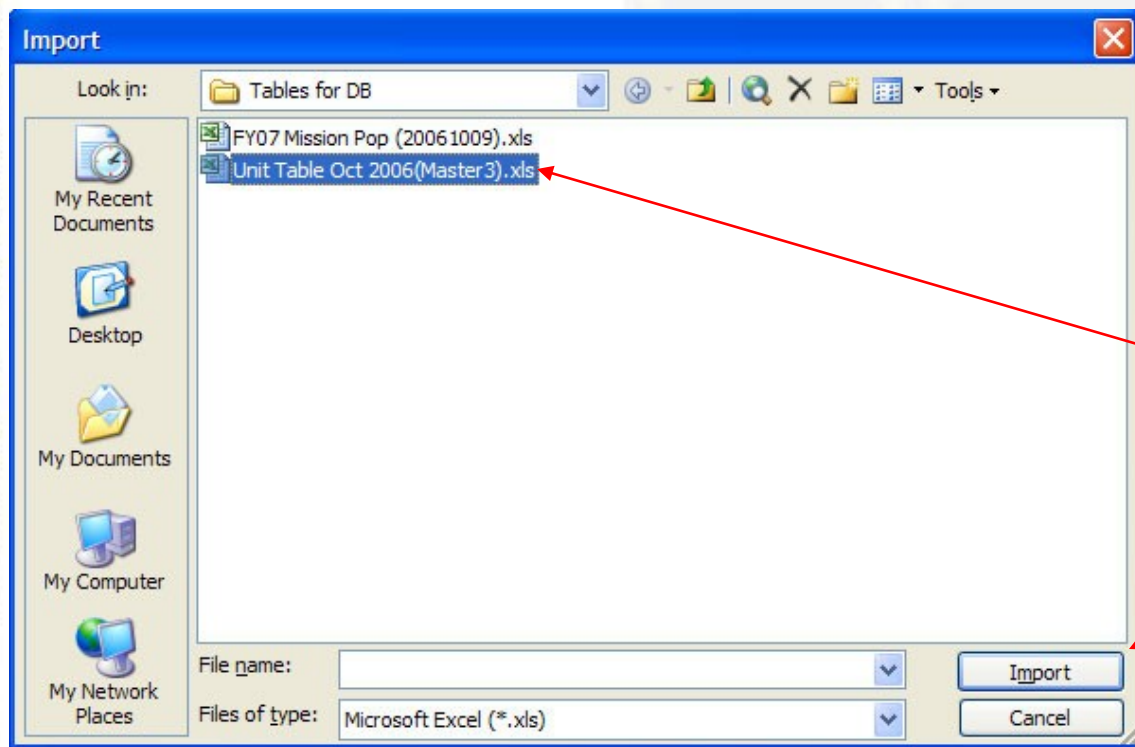


- Step 1:

- Go to New> Import Table
- Click OK

Create a Basic Retention Database Using MS Access

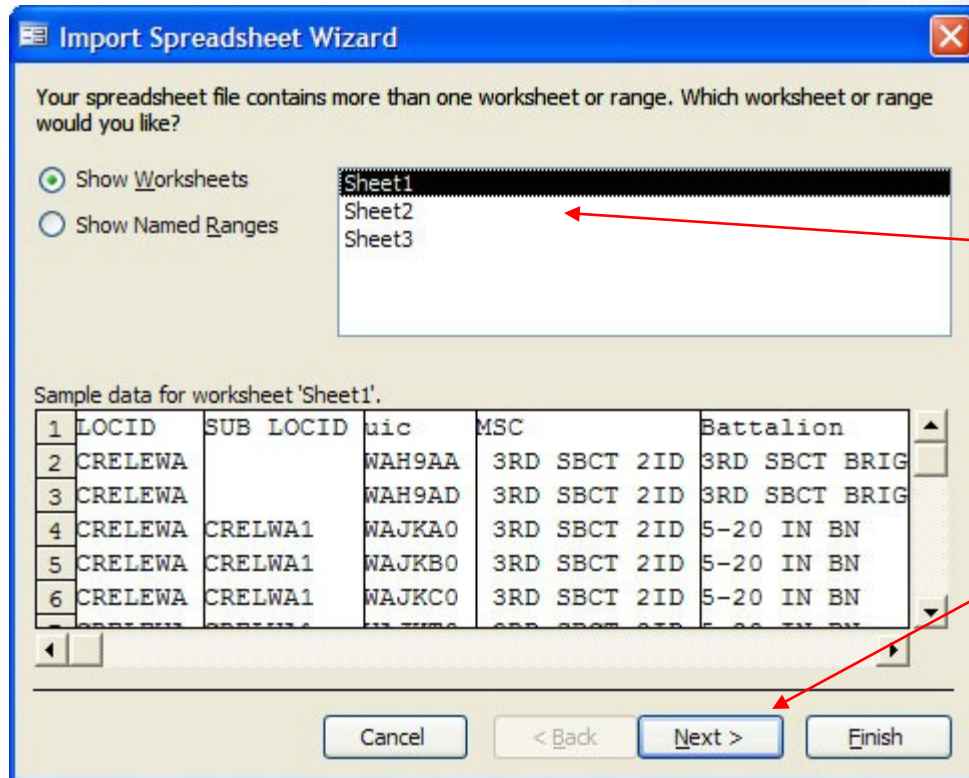
Create UIC Table



- Step 2:
 - Locate File
 - Select File
 - Click Import

Create a Basic Retention Database Using MS Access

Create UIC Table



- Step 3:
 - Select Sheet 1
 - Click "Next"

Create a Basic Retention Database Using MS Access

Create UIC Table

Import Spreadsheet Wizard

Microsoft Access can use your column headings as field names for your table. Does the first row specified contain column headings?

☒ First Row Contains Column Headings

	LOCID	SUB LOCID	uic	MSC	Battalion
1	CRELEWA		WAH9AA	3RD SBCT 2ID	3RD SBCT BRIG
2	CRELEWA		WAH9AD	3RD SBCT 2ID	3RD SBCT BRIG
3	CRELEWA	CRELWA1	WAJKA0	3RD SBCT 2ID	5-20 IN BN
4	CRELEWA	CRELWA1	WAJKB0	3RD SBCT 2ID	5-20 IN BN
5	CRELEWA	CRELWA1	WAJKC0	3RD SBCT 2ID	5-20 IN BN
6	CRELEWA	CRELWA1	WAJKT0	3RD SBCT 2ID	5-20 IN BN

Cancel < Back Next > Finish

- Step 4:
 - Select "First Row Contains Column Headings"
 - Click "Next"

Create a Basic Retention Database Using MS Access

Create UIC Table

Import Spreadsheet Wizard

You can store your data in a new table or in an existing table.

Where would you like to store your data?

☒ In a New Table

☐ In an Existing Table:

	LOCID	SUB LOCID	uic	MSC	Battalion
1	CRELEWA		WAH9AA	3RD SBCT 2ID	3RD SBCT BRIG
2	CRELEWA		WAH9AD	3RD SBCT 2ID	3RD SBCT BRIG
3	CRELEWA	CRELWA1	WAJKA0	3RD SBCT 2ID	5-20 IN BN
4	CRELEWA	CRELWA1	WAJKB0	3RD SBCT 2ID	5-20 IN BN
5	CRELEWA	CRELWA1	WAJKC0	3RD SBCT 2ID	5-20 IN BN
6	CRELEWA	CRELWA1	WAJKT0	3RD SBCT 2ID	5-20 IN BN

Cancel < Back Next > Finish

- Step 5:

- Select "In a New Table"
- Click "Next"
- Click "Next" again

Create a Basic Retention Database Using MS Access

Create UIC Table

Import Spreadsheet Wizard

Microsoft Access recommends that you define a primary key for your new table. A primary key is used to uniquely identify each record in your table. It allows you to retrieve data more quickly.

☐ Let Access add primary key.

☒ Choose my own primary key.

☐ No primary key.

	LOCID	SUB LOCID	uic	MSC
1	CRELEWA		WAH9AA	3RD SBCT
2	CRELEWA		WAH9AD	3RD SBCT
3	CRELEWA	CRELWA1	WAJKA0	3RD SBCT
4	CRELEWA	CRELWA1	WAJKB0	3RD SBCT
5	CRELEWA	CRELWA1	WAJKC0	3RD SBCT
6	CRELEWA	CRELWA1	WAJKT0	3RD SBCT

LOCID
SUB LOCID
uic
MSC
Battalion
Unit
Remarks

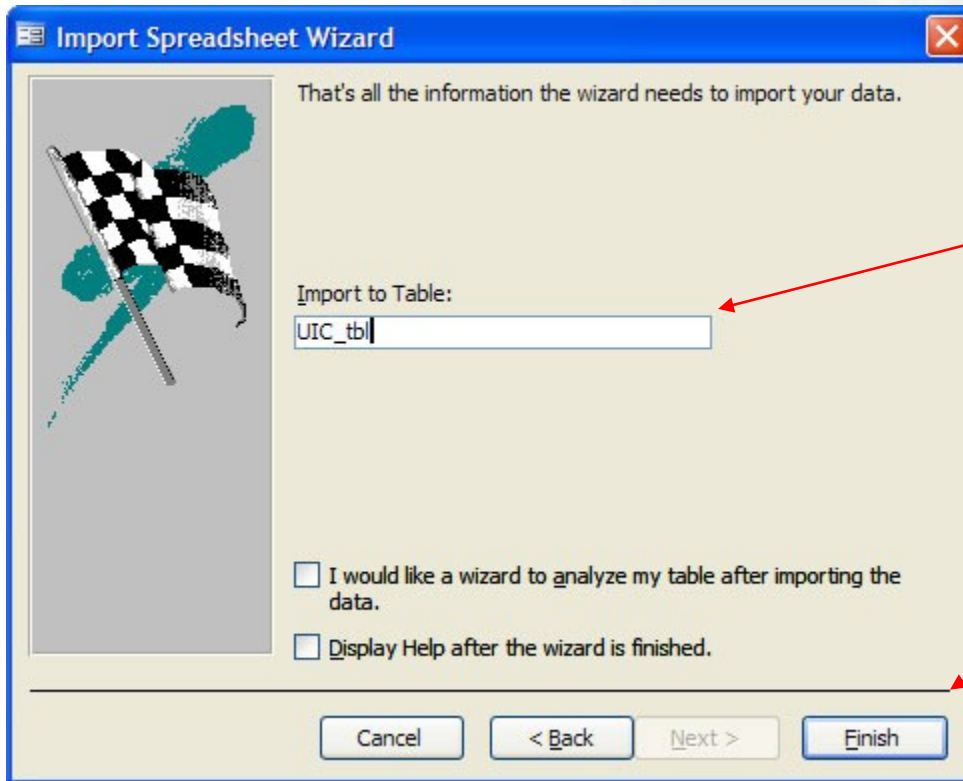
Cancel < Back Next > Finish

- Step 5:

- Select "Choose my own primary key" and find the "uic" field
- Once uic is in the text box click "Next"

Create a Basic Retention Database Using MS Access

Create UIC Table



- Step 6:
 - In the text box enter the name of your table **"UIC_tbl"**
 - Click the "Finish" button to finalize the import process

Create a Basic Retention Database Using MS Access

Create UIC Table

- Step 7:
 - Review the results of the import process:
 - Table
 - Data formatted the way you intended
 - Primary key established
 - Errors
 - Import Errors

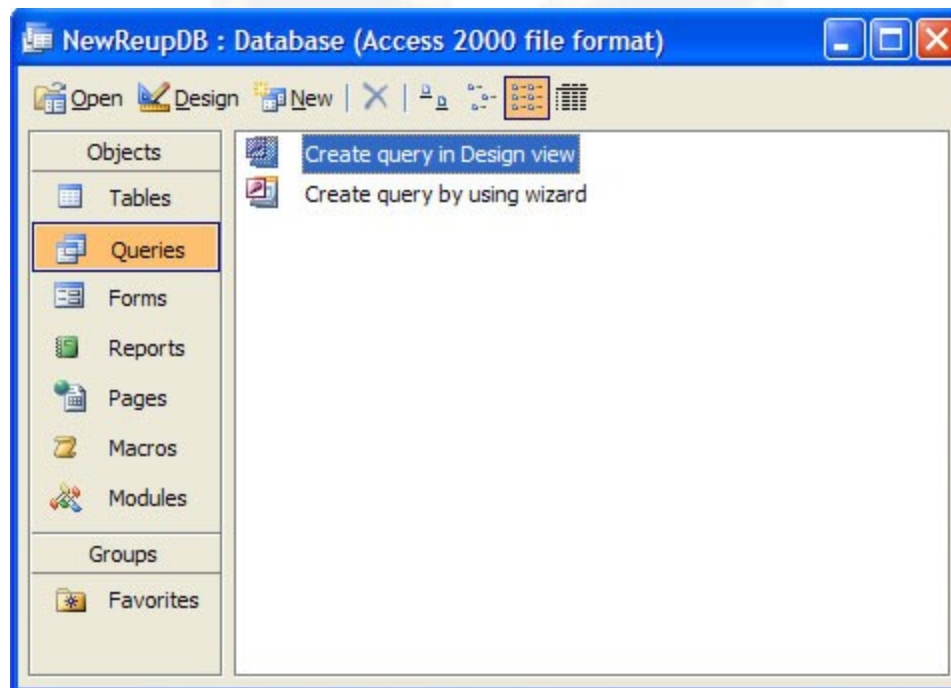
UIC_tbl : Table

	LOCID	SUB LOCID	uic	MSC	Battalion	Unit
▶	CRELEW5	CRELW5A	W0KE29	USAG	IMA	USAG FT LEWI
	CRELEW5	CRELW5A	W12K06	USAG	IMA	DOL TNG BDE
	CRELEW5	CRELW5A	W12K07	USAG	IMA	USAG FT LEWI
	CRELEW5	CRELW5A	W12K1X	USAG	IMA	USAG FT LEWI
	CRELEW5	CRELW5A	W12K60	USAG	IMA	USAG FT LEWI
	CRELEW5	CRELW5A	W12K61	USAG	IMA	DOL TNG BDE
	CRELEW5	CRELW5A	W12K62	USAG	IMA	DOL TNG BDE
	CRELEW5	CRELW5A	W12K63	USAG	IMA	DOL TNG BDE

Record: 1 of 441

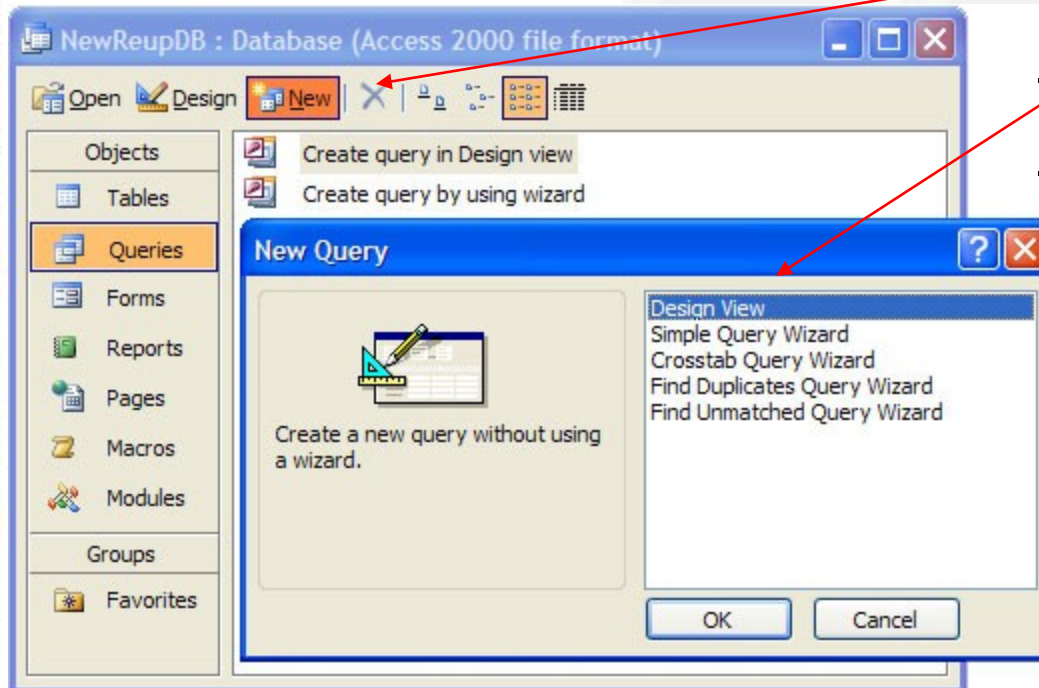
Create a Basic Retention Database Using MS Access (Queries)

- Step 1
 - Create a new query to determine your eligible population
 - A query is a question that you ask the database



Create a Basic Retention Database Using MS Access (Queries)

- Step 2:
 - Go to "New"
 - Select "Design View"
 - Click "OK"



ARMY STRONG-STAY ARMY

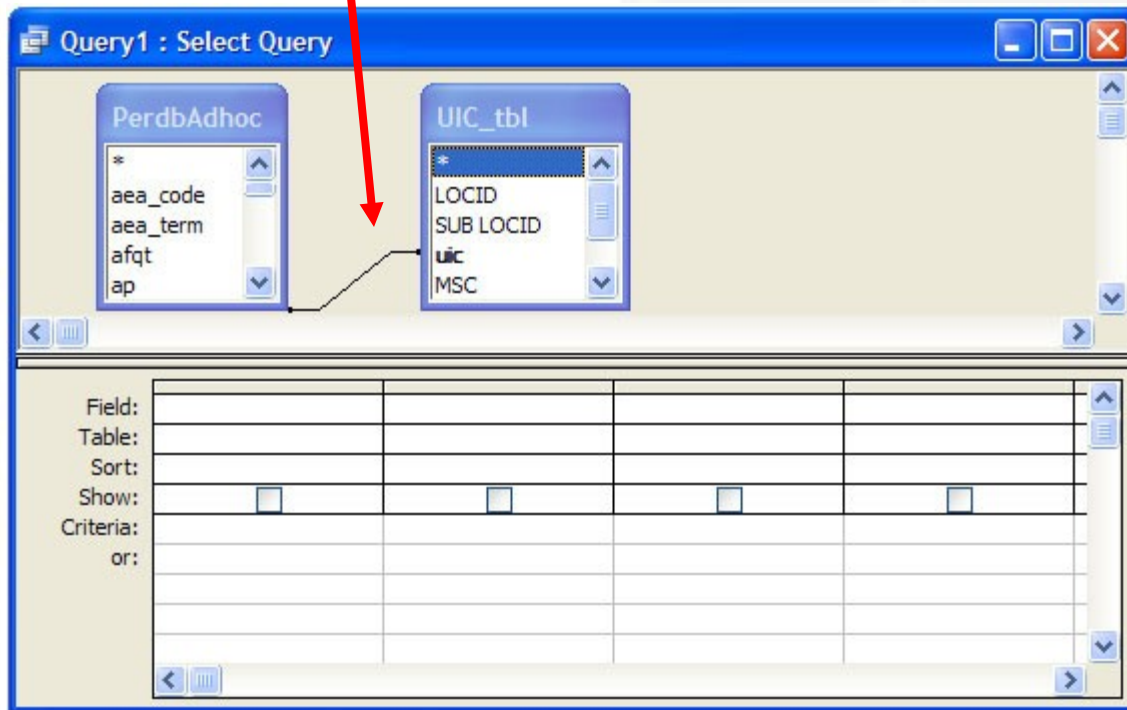
- ARMY STRONG-STAY ARMY**



ARMY STRONG-STAY ARMY

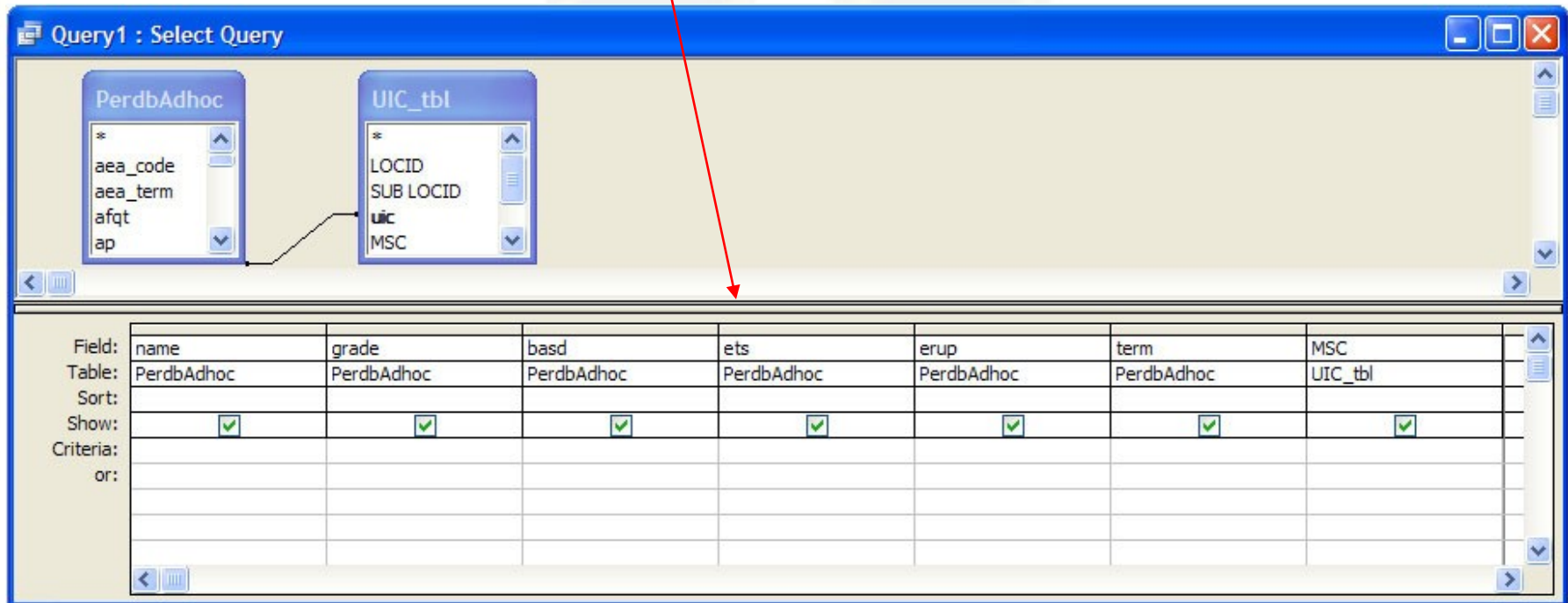
Create a Basic Retention Database Using MS Access (Queries)

- Step 4:
 - Link the tables using the primary key from one table and the foreign key in the other table



Create a Basic Retention Database Using MS Access (Queries)

- Step 5
 - From the tables, click and drag each field you need into the Query Grid



Create a Basic Retention Database Using MS Access (Queries)

- Step 6

- Ask your question in the Criteria Text Box

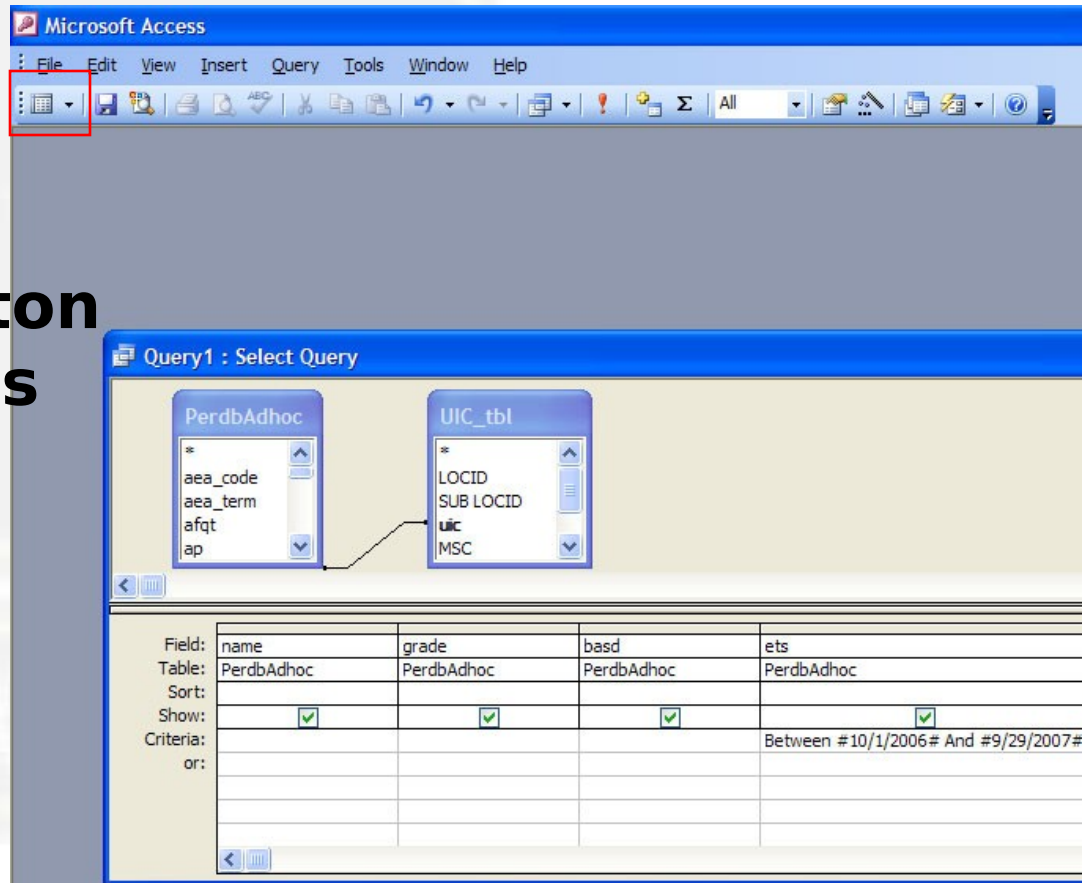
We asked how many Mids with any 9 ERUP code are ETS'ing between 1 Oct 2006 and 29 Sep 07

The screenshot shows the MS Access 'Query1: Select Query' window. It displays two tables, 'PerdbAdhoc' and 'UIC_tbl', with their respective fields. The 'PerdbAdhoc' table has fields: aea_code, aea_term, afqt, and ap. The 'UIC_tbl' table has fields: LOCID, SUB LOCID, UIC, and MSC. A red arrow points from the 'Criteria Text Box' in the 'ets' column of the design grid to the yellow text box above, which contains the query criteria: 'Between #10/1/2006# And #9/29/2007#'. The design grid shows the following fields and criteria:

Field:	name	grade	basd	ets	erup	term	MSC
Table:	PerdbAdhoc	PerdbAdhoc	PerdbAdhoc	PerdbAdhoc	PerdbAdhoc	PerdbAdhoc	UIC_tbl
Sort:							
Show:	☒	☒	☒	☒	☒	☒	
Criteria:				Between #10/1/2006# And #9/29/2007#	Like "9**"	= "2"	
or:							

Create a Basic Retention Database Using MS Access (Queries)

**Press “View” Button
To see your results**



Create a Basic Retention Database Using MS Access (Queries)

Here is what your table should look like
All questions were answered.

**All Mids with any 9
ERUP code ETS'ing
between
1 Oct 2006 and 29 Sep
07**

Query1 : Select Query

	name	grade	basd	ets	erup	term	msg
▶	PIWOWARSKI	05	7/25/2000	2/16/2007	9Q	2	4/2 INF (SBCT)
	LACY TASHAN	06	5/13/1998	11/5/2006	9Q	2	593rd CSG
	ROBINSON VO	04	5/8/2003	4/18/2007	9Z	2	66TH AVN
	SWEAZY JOSH	06	6/24/1998	7/26/2007	9Q	2	593rd CSG
	CUNNINGHAM	04	6/18/2001	5/4/2007	9Z	2	593rd CSG
	FROST JESSE	05	5/4/2000	2/21/2007	9Z	2	29TH SIG BN
	WILSON CURT	01	12/8/2000	1/1/2007	9Z	2	555th CSB
	FAYSON JESS	04	7/8/1999	5/10/2007	9Z	2	66TH AVN
	HAYES MATTH	04	1/24/2000	2/17/2007	9K	2	29TH SIG BN
	RICH BRIAN M	04	1/22/2002	4/4/2007	9Z	2	4/2 INF (SBCT)
	KLEINMAN TIM	04	10/26/2000	9/19/2007	9Z	2	3/2 INF (SBCT)
	WOOTEN KYLE	04	9/15/2000	1/10/2007	9K	2	593rd CSG
	NAPOLEON JO	03	9/28/1999	11/11/2006	9E	2	66TH AVN
	PERSINGER JA	06	9/8/2000	7/10/2007	9X	2	66TH AVN
	PAZ RAYMOND	04	4/29/1999	5/23/2007	9E	2	66TH AVN
	DONCZASKI JC	04	5/19/2000	9/19/2007	9K	2	3/2 INF (SBCT)

Record: 1 of 61

Create a Basic Retention Database Using MS Access (Queries)



**Press Design View Button in upper left hand corner.
In Design View, remove ERUP and TERM Criteria.**

Query1 : Select Query

PerdbAdhoc

- aea_code
- aea_term
- afqt
- ap

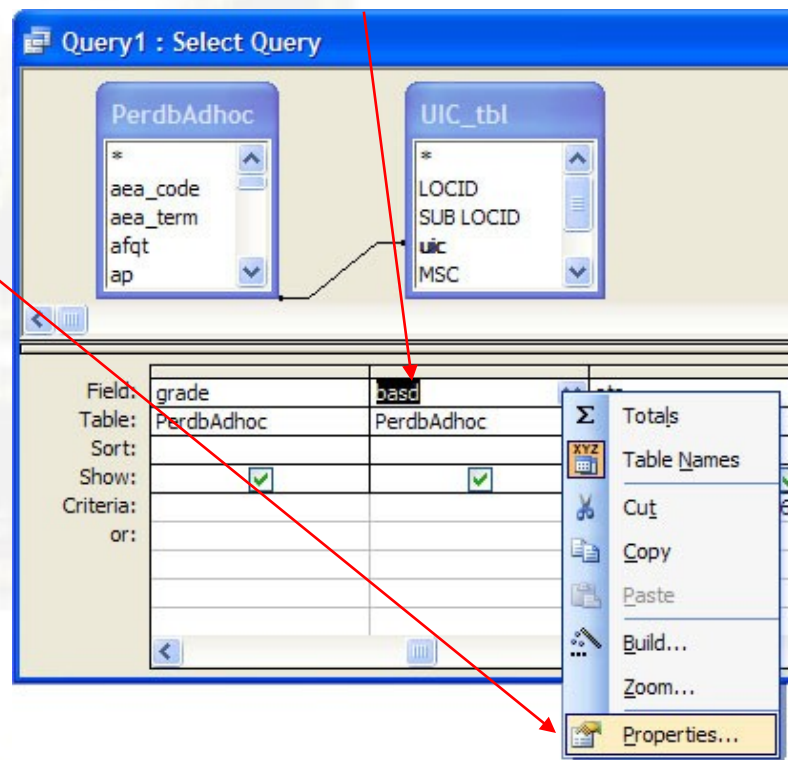
UIC_tbl

- LOCID
- SUB LOCID
- UIC
- MSC

Field:	grade	basd	ets	erup	term	MSC
Table:	PerdbAdhoc	PerdbAdhoc	PerdbAdhoc	PerdbAdhoc	PerdbAdhoc	UIC_tbl
Sort:						
Show:	☒	☒	☒	☒	☒	☒
Criteria:			Between #10/1/2006# And #9/29/2007#			
or:						

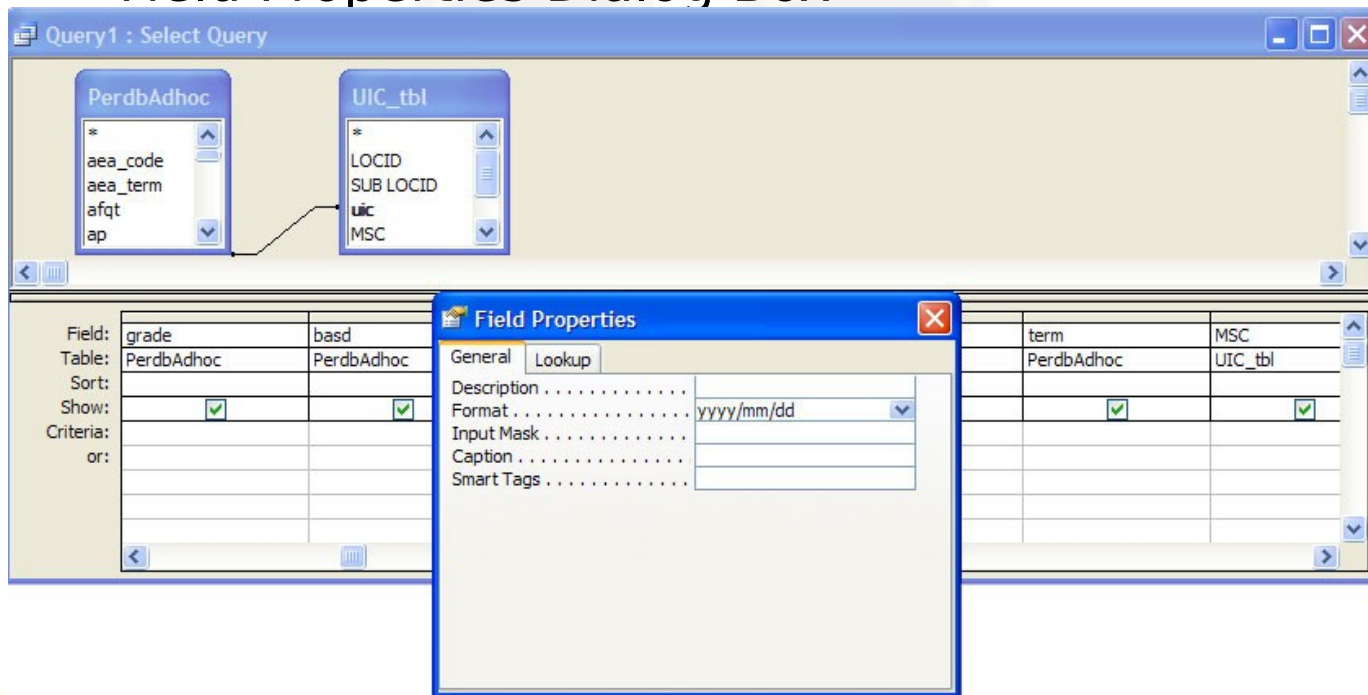
Create a Basic Retention Database Using MS Access (Queries)

- Step 7:
 - Improve the readability of your information
 - Right click on the desired field (**BASD**)
 - Select “properties”



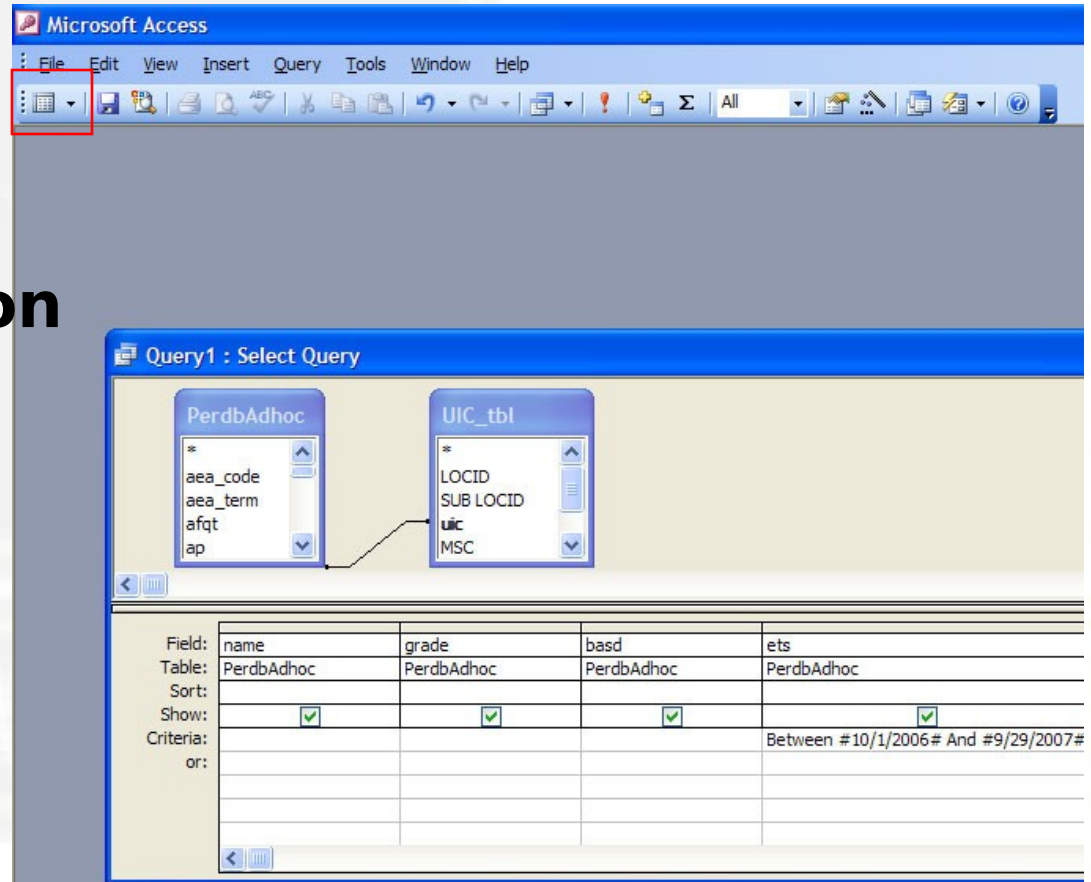
Create a Basic Retention Database Using MS Access (Queries)

- Step 7a
 - Insert your format in the “Format” Input box **yyyy/mm/dd**
 - Click on the X in the upper right of the Field Properties Dialog Box



Create a Basic Retention Database Using MS Access (Queries)

**Press “View” Button
To see your results**



Create a Basic Retention Database Using MS Access (Queries)

- Step 8
 - Review the results
 - Save your Query use **PERDB_Query** as query name

Compare BASD and ETS Date Formats

BASD = yyyy/mm/dd

ETS = mm/dd/yyyy

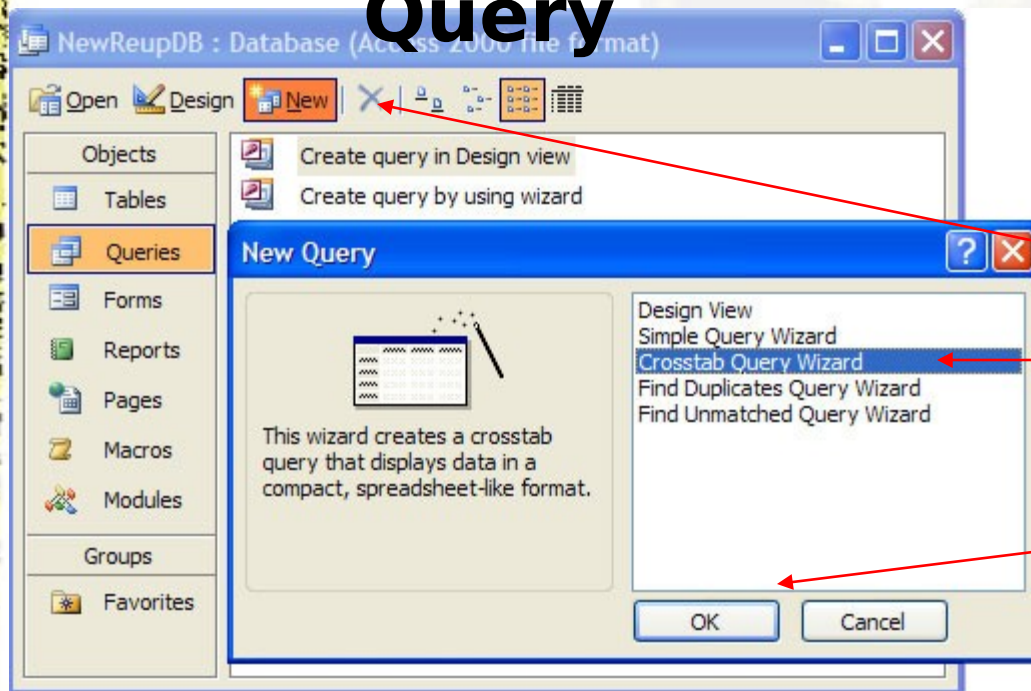
	name	grade	basd	ets	erup	term	MSC
▶	TOTH MIKLOS	04	2003/01/14	1/13/2007	10	1	29TH SIG BN
	LOVELY STEVI	05	2001/02/02	11/2/2006	10	2	555th CSB
	PIWOWARSKI	05	2000/07/25	2/16/2007	9Q	2	4/2 INF (SBCT)
	KENNEY ROBE	04	2003/04/30	4/17/2007	10	2	555th CSB
	NOBLE CHRIS	04	2003/07/30	2/17/2007	10	1	555th CSB
	LOMBARD MA	04	2002/07/02	7/1/2007	9X	1	42ND MP BDE
	HARTT JEREM	04	2004/06/15	9/28/2007	10	2	3/2 INF (SBCT)
	PEREZ GABRIE	04	2004/03/02	3/1/2007	10	1	STB
	BULLIS CHRIS	04	2003/01/29	9/19/2007	10	1	3/2 INF (SBCT)
	CASTILLOESP	05	1998/07/24	3/8/2007	10	2	593rd CSG
	STGERMAIN P	04	2004/04/20	8/9/2007	11	1	4/2 INF (SBCT)
	DUGAN STEVE	04	2002/11/07	11/6/2006	10	1	555th CSB
	DAO VIET TRI	04	2004/04/27	4/26/2007	10	1	555th CSB
	CANNIZZARO J	03	2004/02/05	9/19/2007	9Z	1	3/2 INF (SBCT)
	PERAULT CHA	05	2002/03/21	1/10/2007	10	1	593rd CSG
	DAI MED KAMU	04	2003/04/14	9/19/2007	10	1	3/2 INF (SBCT)

Record: 1 of 1432

Create a Basic Retention Database Using MS Access (Queries)

Build a Summary Query

- Step 1
Must use the Crosstab Query
- This query presents the information in a spreadsheet format
- Go to "New"
- Select "Crosstab Query Wizard"
- Click "OK"



Create a Basic Retention Database Using MS Access (Queries)

Which table or query contains the fields you want for the crosstab query results?

To include fields from more than one table, create a query containing all the fields you need and then use this query to make the crosstab query.

Query: PERDB_Query

View

☐ Tables ☒ Queries ☐ Both

Sample:

	Header1	Header2	Header3
TOTAL			

Cancel < Back Next > Finish

- Step 2
 - Select Queries in View Box

We are using the PERDB_Query as the foundation

- Click "Next"

Create a Basic Retention Database Using MS Access (Queries)

Crosstab Query Wizard

Which fields' values do you want as row headings?
You can select up to three fields.
Select fields in the order you want information sorted. For example, you could sort and group values by Country and then Region.

Available Fields:

- name
- grade
- basd
- ets
- erup
- term

Selected Fields:

- MSC

Sample:

MSC	Header1	Header2	Header3
MSC1	TOTAL		
MSC2			
MSC3			
MSC4			

Buttons: Cancel, < Back, Next >, Finish

- Step 3
 - Select **MSC** in "Available Fields" and move to "Selected Fields"

MSC Should be the header for Column 1

- Click "Next"

Create a Basic Retention Database Using MS Access (Queries)

Crosstab Query Wizard

Which field's values do you want as column headings?

For example, you would select Employee Name to see each employee's name as a column heading.

name
grade
basd
ets
erup
term

Sample:

MSC	term1	term2	term3
MSC1	Count(name)		
MSC2			
MSC3			
MSC4			

Cancel < Back Next > Finish

- Step 4
 - Select **TERM** as as the Fields Value

TERM Should be the header for Columns 2,3, and 4

- Click "Next"

Create a Basic Retention Database Using MS Access (Queries)

Crosstab Query Wizard

What number do you want calculated for each column and row intersection?

For example, you could calculate the sum of the field Order Amount for each employee (column) by country and region (row).

Do you want to summarize each row?

☒ Yes, include row sums.

Fields:

name
grade
basd
ets
erup

Functions:

Count
First
Last
Max
Min

Sample:

MSC	term1	term2	term3
MSC1	Count(name)		
MSC2			
MSC3			
MSC4			

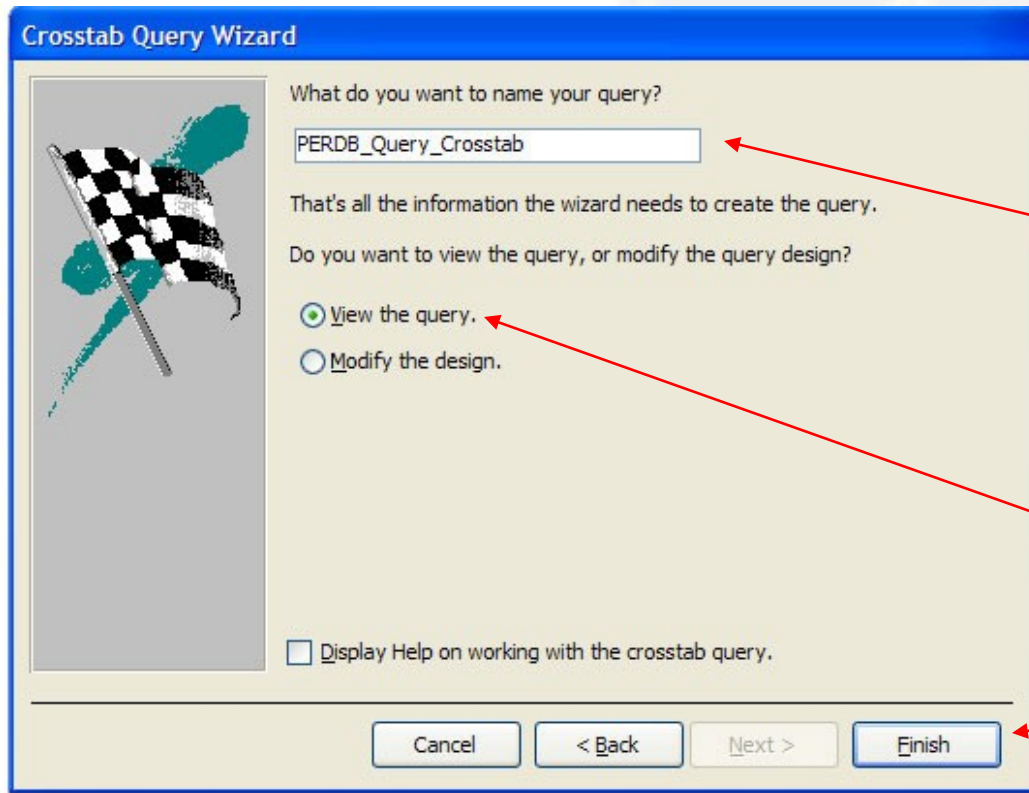
Buttons: Cancel, < Back, Next >, Finish

- Step 5
 - Ensure **COUNT** is selected in the Functions

Check 
YES, Include row sums.

- Click "Next"

Create a Basic Retention Database Using MS Access (Queries)



- Step 6
 - Keep default query name:

PERDB_Query_Crosstab
in text box

- Click "View the query"
- Click "Finish"

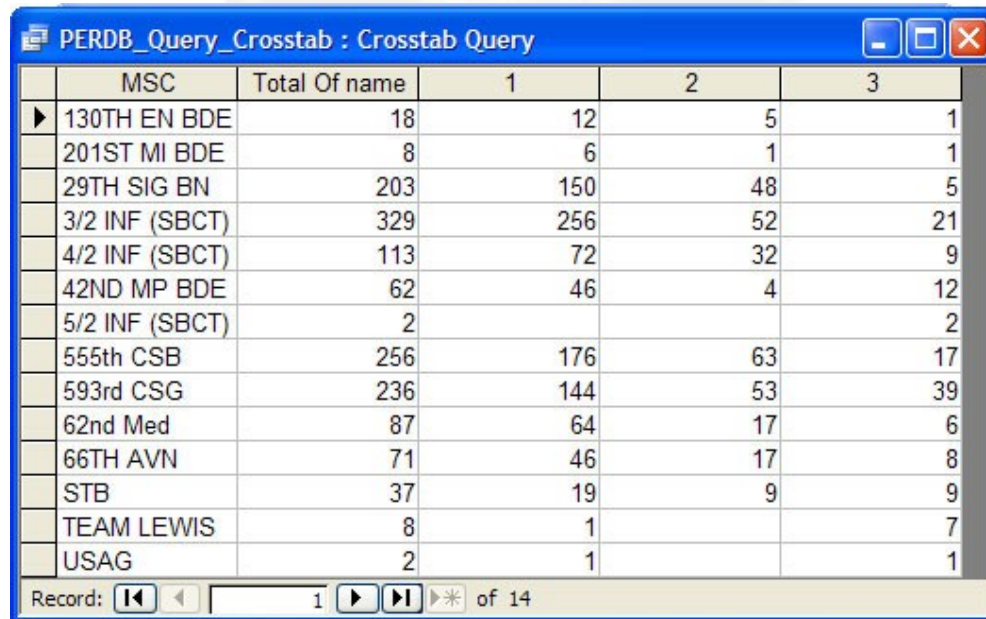
Create a Basic Retention Database Using MS Access (Queries)

- Step 7
 - Review the results
 - Save your Query use **PERDB_Query_Crosstab** as query name

Bring up in Design View and customize

Example: change Total of name to

Total of Term and move column over to far right

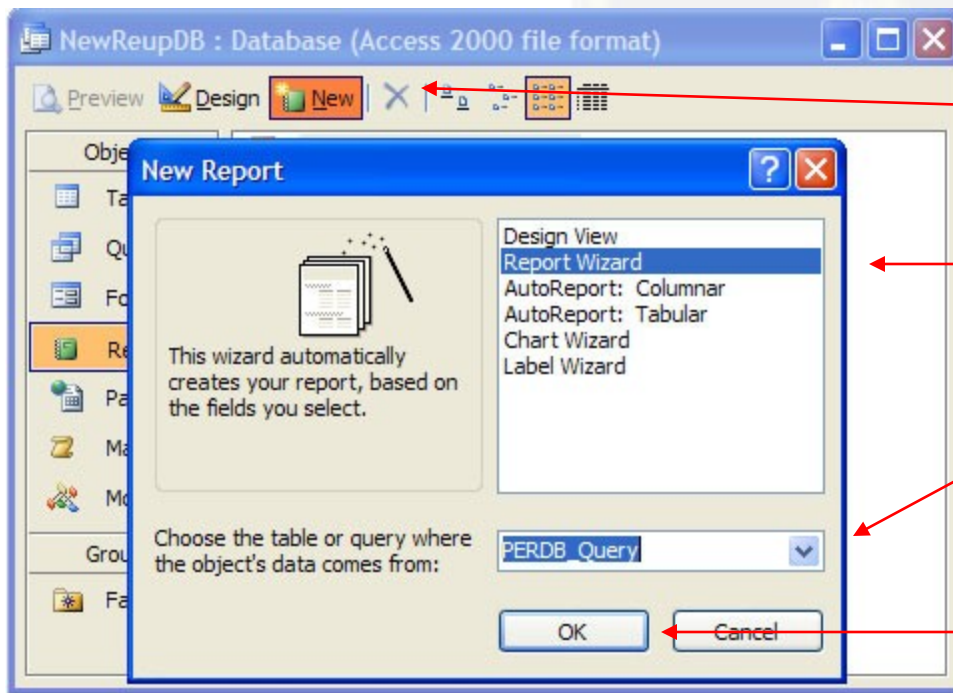


MSC	Total Of name	1	2	3
130TH EN BDE	18	12	5	1
201ST MI BDE	8	6	1	1
29TH SIG BN	203	150	48	5
3/2 INF (SBCT)	329	256	52	21
4/2 INF (SBCT)	113	72	32	9
42ND MP BDE	62	46	4	12
5/2 INF (SBCT)	2			2
555th CSB	256	176	63	17
593rd CSG	236	144	53	39
62nd Med	87	64	17	6
66TH AVN	71	46	17	8
STB	37	19	9	9
TEAM LEWIS	8	1		7
USAG	2	1		1

Record: 1 of 14

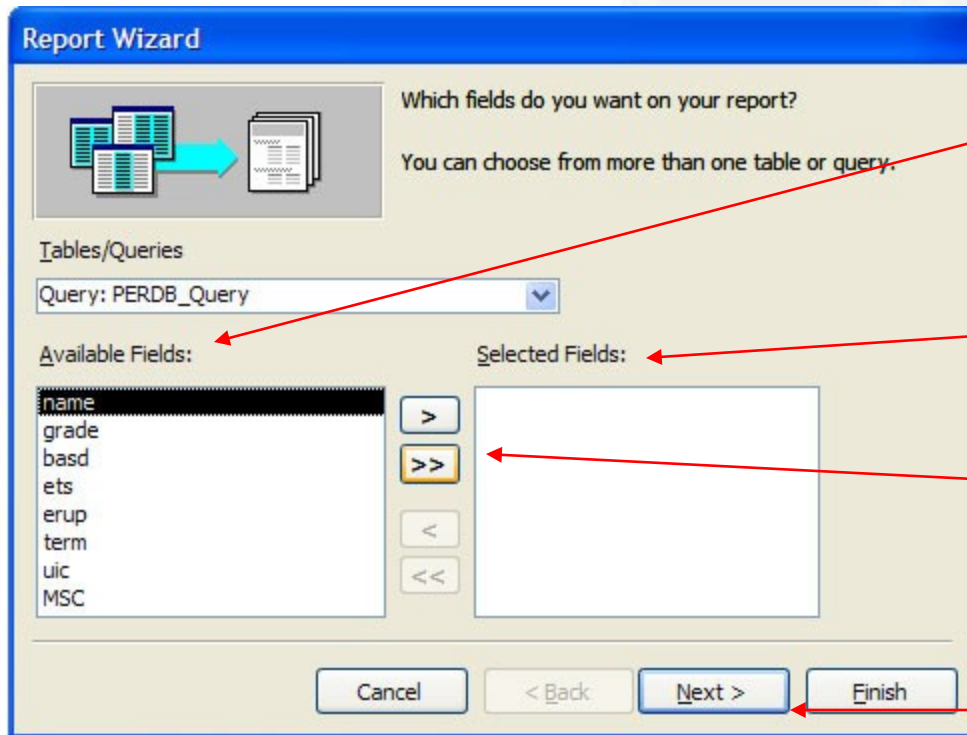
Create a Basic Retention Database Using MS Access (Reports)

- Step 1:
 - Select Reports from the Database window and click on new
 - Select the Report Wizard
 - Select the name of your query or table in the Input box
 - Click "OK"



Create a Basic Retention Database Using MS Access (Reports)

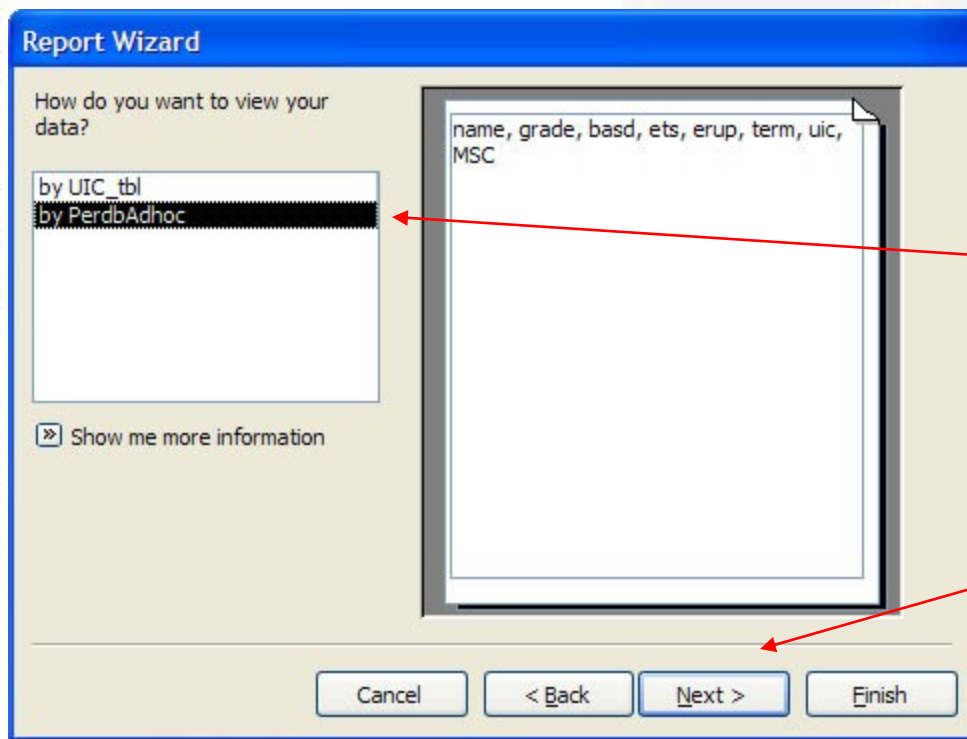
- Step 2:
 - Transfer all “Available fields” from the left box to the right box named “Selected fields” using



> >

- Click “Next”

Create a Basic Retention Database Using MS Access (Reports)

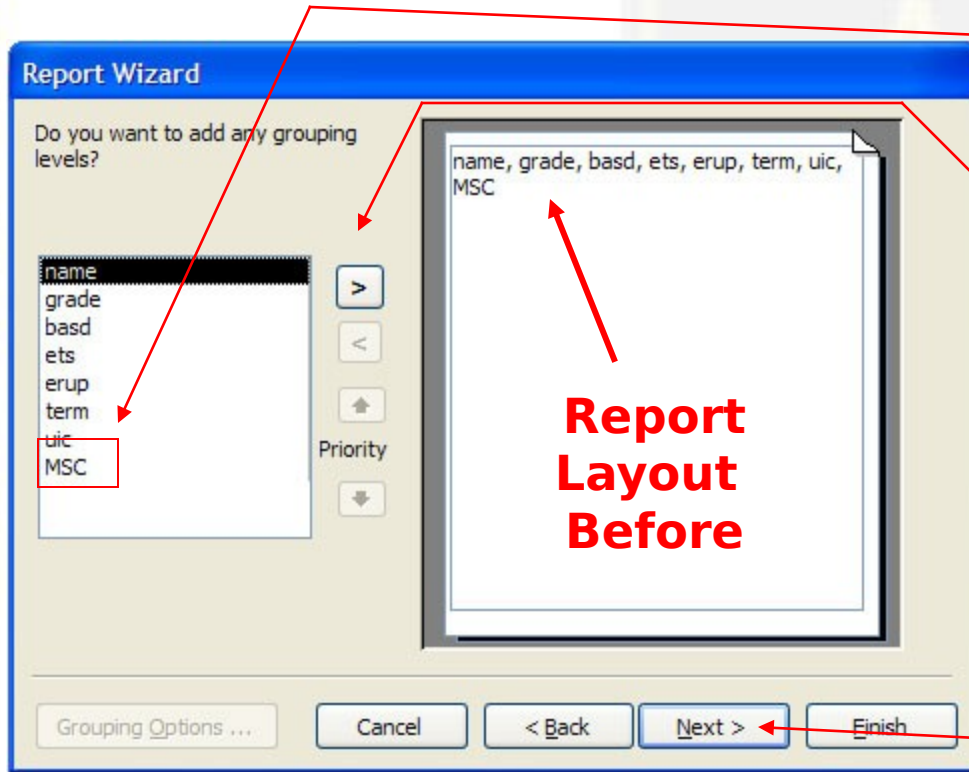


- Step 3:
 - View Data by "PerdbAdhoc"
 - Click "Next"

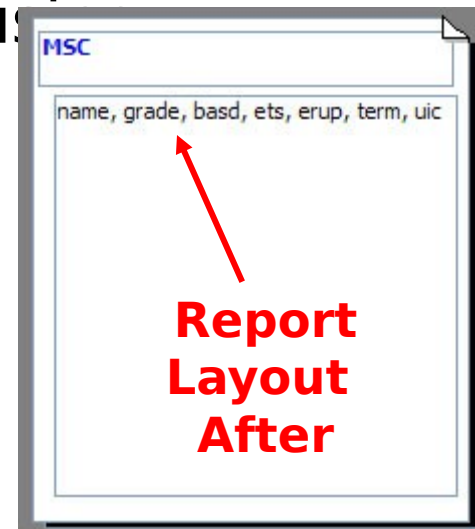
Create a Basic Retention Database Using MS Access (Reports)

- Step 4:

- Select “MSC” from text box and bring over u



**Report
Layout
Before**



**Report
Layout
After**

- Click “Next”

Create a Basic Retention Database Using MS Access (Reports)

- Step 5:

- Sort your fields by "Term" and "ETS"

Report Wizard

What sort order do you want for detail records?

You can sort records by up to four fields, in either ascending or descending order.

1		Ascending
2		Ascending
3		Ascending
4		Ascending

Cancel < Back **Next >** Finish

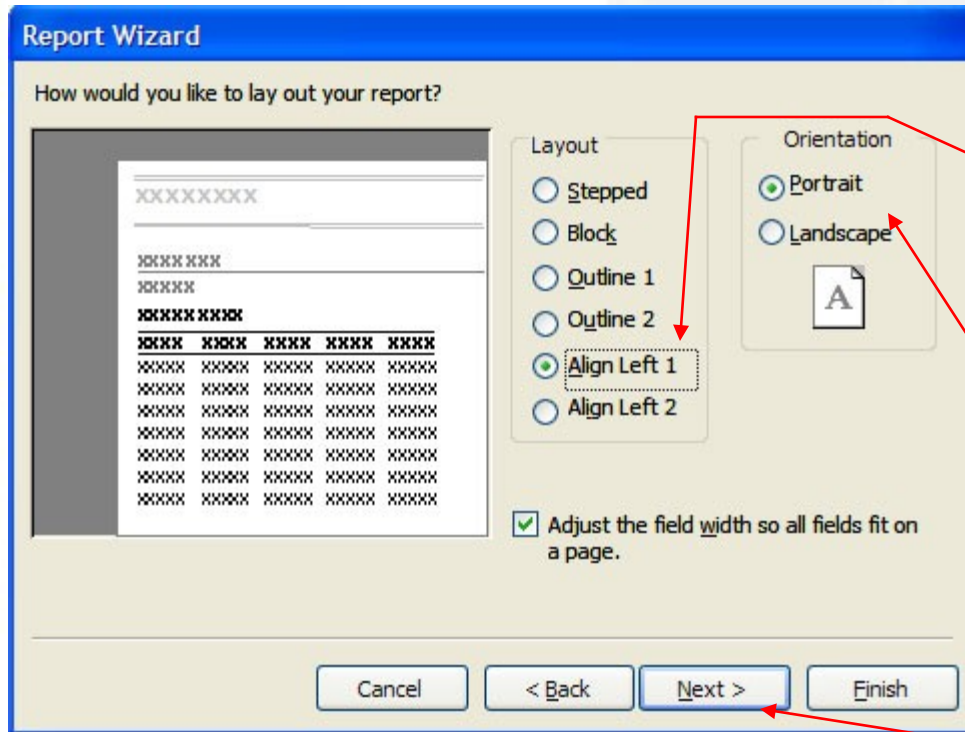
You can sort records by up to four fields, in either ascending or descending order.

1	term	Ascending
2	ets	Ascending
3		Ascending
4		Ascending

- Click "Next"

Create a Basic Retention Database Using MS Access (Reports)

- Step 6:



- Organize the lay out of your report
"Align Left 1"

- Establish the orientation of your report

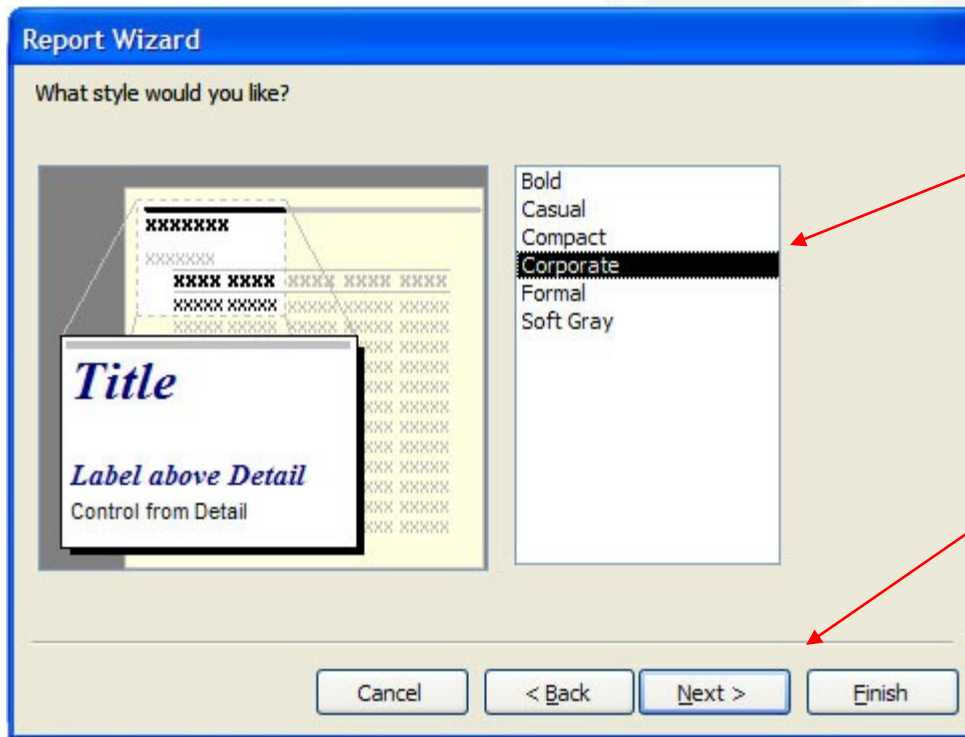
- Portrait (vertical)
or

- Landscape (horizontal)

- Click "Next"

Create a Basic Retention Database Using MS Access (Reports)

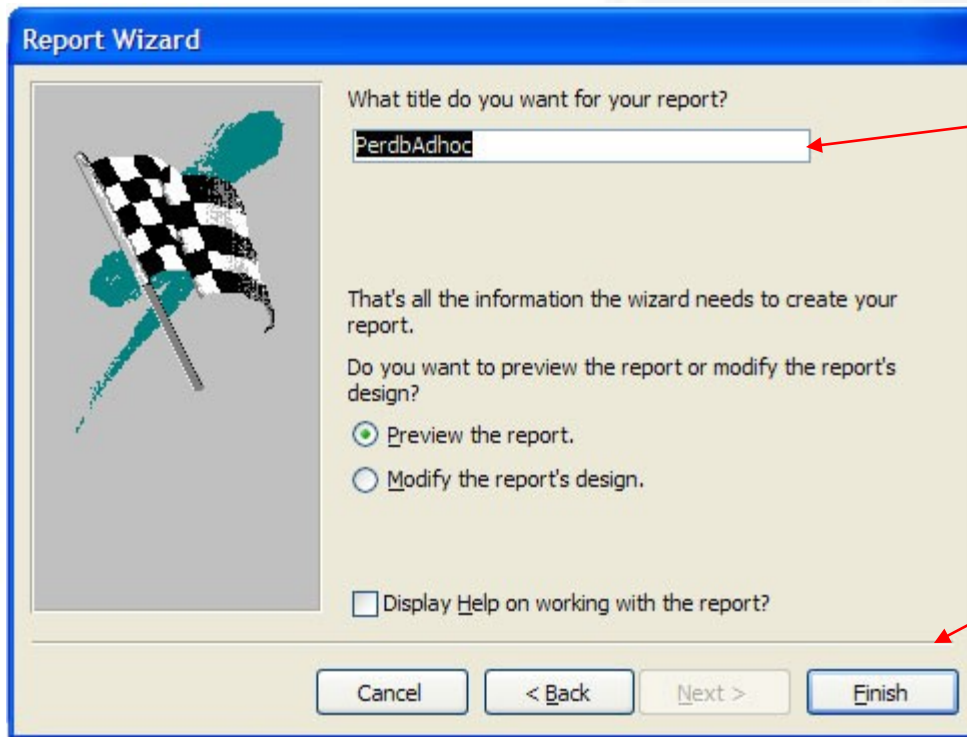
- Step 7:
 - Select a style for your report
 - “Corporate”
 - Click “Next”



Create a Basic Retention Database Using MS Access (Reports)

- Step 8:

- Type the name of your new report in the Input box. Default name is **PerdbAdhoc**



- Click "Finish"

Create a Basic Retention Database Using MS Access (Reports)

- Step 9:

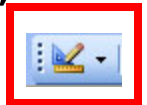
- Preview your report
- Determine whether or not you need to make changes to your report format or lay out
- Click the "Report Design" button to make changes to the report

PerdbAdhoc

MSC 130TH ENBDE

term	ets name	grade	basd erup	uic
1	006 COLE JUSTIN	04	/06/20 10	WHDLAA
1	006 ELLIS NATHAN	04	/06/06 10	WHDLAA
1	006 STATON BRAN	04	/09/18 10	WHDLAA
1	007 MIGLIORE AN	05	/03/18 10	WHDLAA
1	007 LAWSON ANT	04	/07/09 10	WHDLAA
1	007 TUCKER WILLI	05	/09/17 10	WHDLAA
1	007 RAMSEY JACO	05	/06/01 10	WHDLAA
1	007 MOON JASON	05	/05/01 10	WHDLAA
1	007 STATON TYSH	04	/07/18 10	WHDLAA
1	007 TRAYWICK JO	04	/12/14 10	WHDLAA
1	007 AYERS MICHA	03	/04/27 10	WHDLAA

Page: 14 1



Create a Basic Retention Database Using MS Access (Reports)

DESIGN VIEW

PerdbAdhoc : Report

Report Header

PerdbAdhoc

Page Header

MSC Header

MSC *MSC*

<i>term</i>	<i>ets</i>	<i>name</i>	<i>grade</i>	<i>basd</i>	<i>erup</i>	<i>ulc</i>
-------------	------------	-------------	--------------	-------------	-------------	------------

Detail

<i>term</i>	<i>ets</i>	<i>name</i>	<i>grade</i>	<i>basd</i>	<i>erup</i>	<i>ulc</i>
-------------	------------	-------------	--------------	-------------	-------------	------------

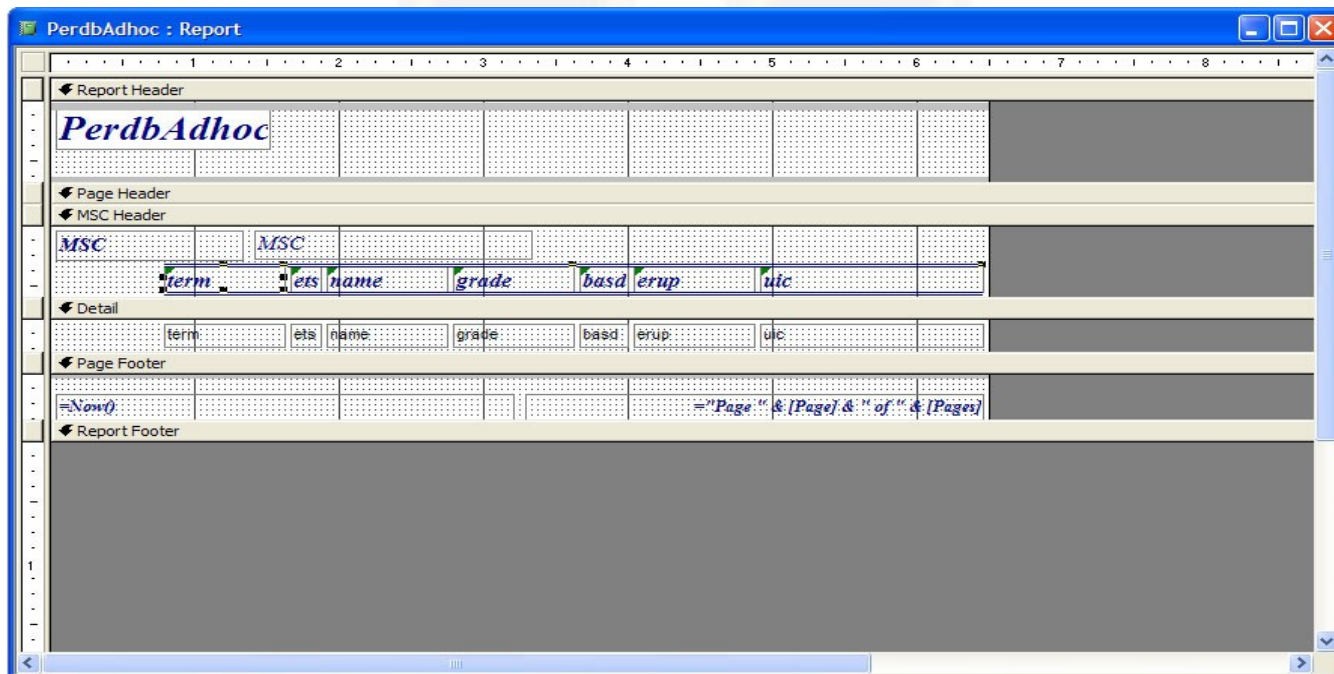
Page Footer

=Now(): = "Page " & [Page] & " of " & [Pages]

Report Footer

Create a Basic Retention Database Using MS Access (Reports)

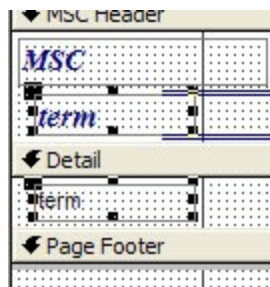
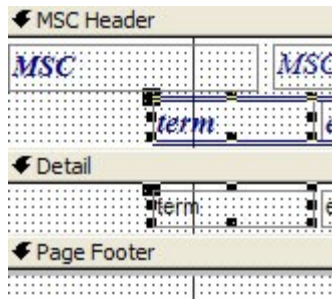
- “Design View” is where you can make your changes:
 - Add formulas
 - Change the organization of your report
 - Change the look of fields



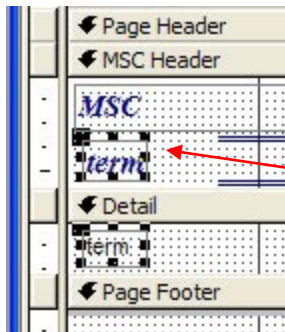
Create a Basic Retention Database Using MS Access (Reports)

- Step 10:

- To change the layout of the report, left click on the desired field "term", hold "Shift key" and left click on the other "term" field.
- Using the left keyboard arrow, move fields to far left.

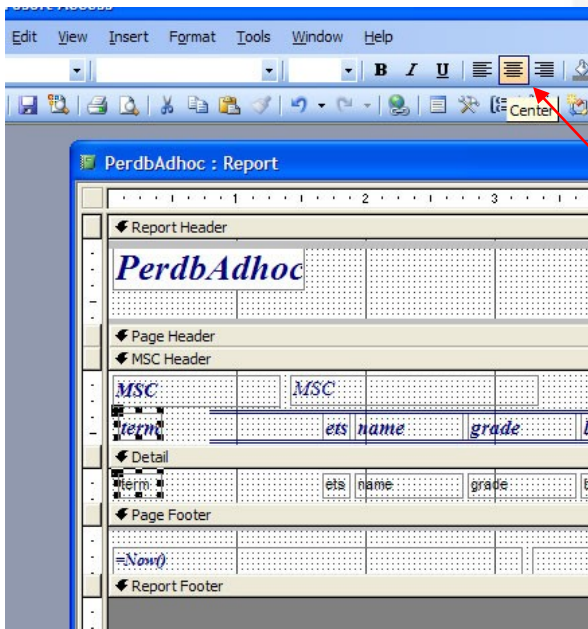


Create a Basic Retention Database Using MS Access (Reports)



- Step 10 continued:

- Resize field "term" by moving mouse pointer over right side of "term". Move with mouse pointer careful to move only towards left side and ending up at the edge of "term". Resizing one resizes both as long as both are highlighted.



- Center "term" field by pressing "Center" button.

Create a Basic Retention Database Using MS Access (Reports)

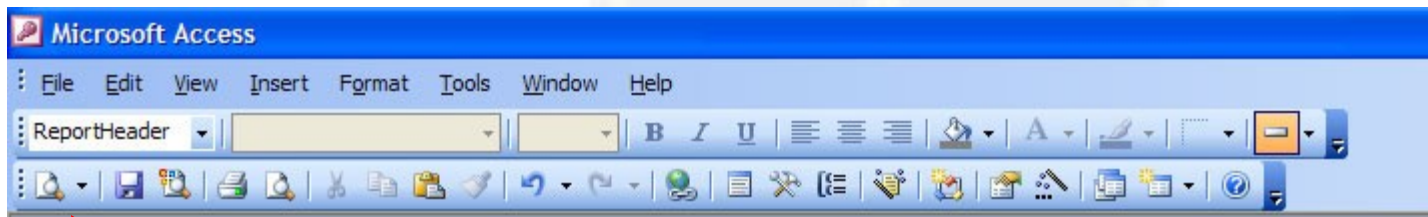
Repeat with the other fields. Desired order is:
Term, Name, Grade, BASD, ETS, ERUP, and UIC
Resize Fields according to the space they need i.e.
Make "grade" smaller and "ets" bigger, etc.

PerdbAdhoc : Report

Report Header						
<i>PerdbAdhoc</i>						
Page Header						
MSC Header						
<i>MSC</i>		<i>MSC</i>				
<i>term</i>	<i>name</i>	<i>grade</i>	<i>basd</i>	<i>ets</i>	<i>erup</i>	<i>uic</i>
Detail						
<i>term</i>	<i>name</i>	<i>grade</i>	<i>basd</i>	<i>ets</i>	<i>erup</i>	<i>uic</i>
Page Footer						
<i>=Now()</i>				<i>= "Page: " & [Page] & " of " & [Pages]</i>		
Report Footer						

Create a Basic Retention Database Using MS Access (Reports)

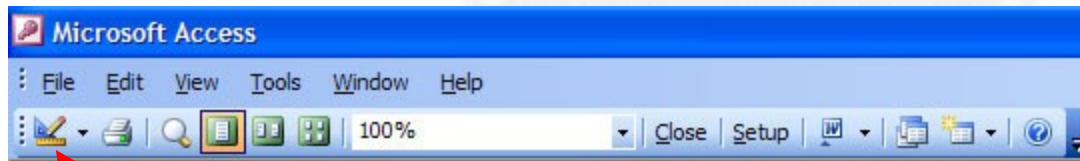
Toolbar in Reports design view



You can view report at any time by pressing



Toolbar in Report view



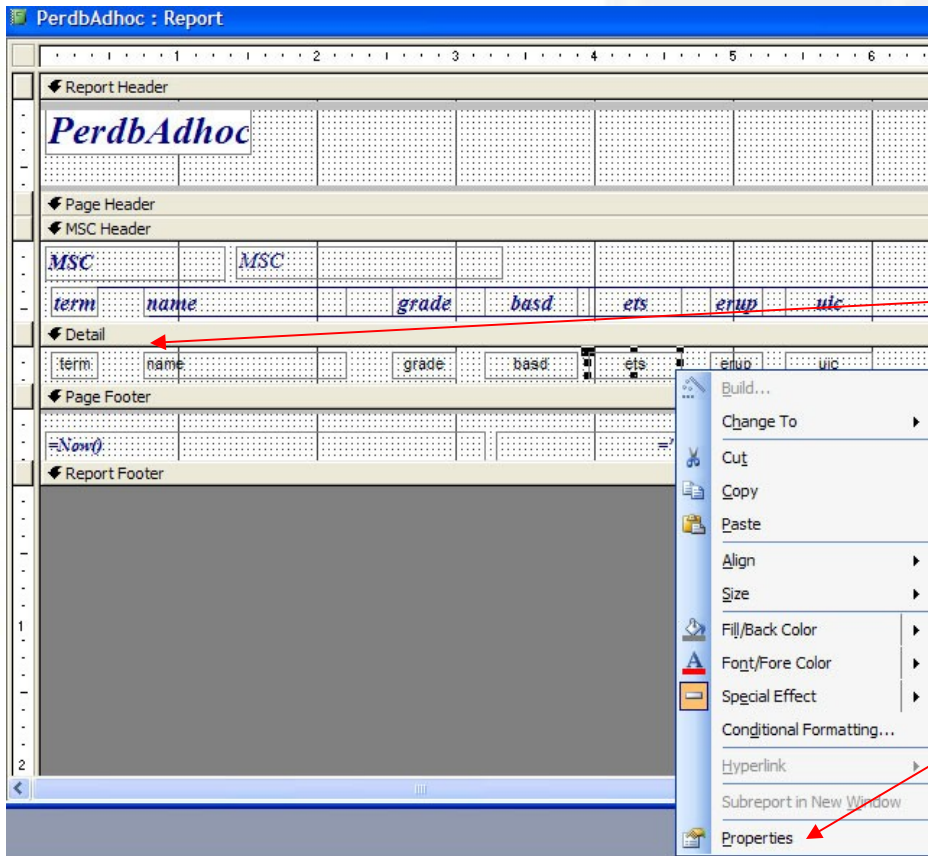
You can go to design report at any time by pressing



Create a Basic Retention Database Using MS Access (Reports)

- Step 11:

- To change the look of a field, right click on the desired field in the "Detail" area (white space below bar named Detail) and select the field properties



Create a Basic Retention Database Using MS Access (Reports)

- Step 11 continued:
 - Edit the field properties to enhance the readability of your report. For example, the "ets" field.

Before edit field showed

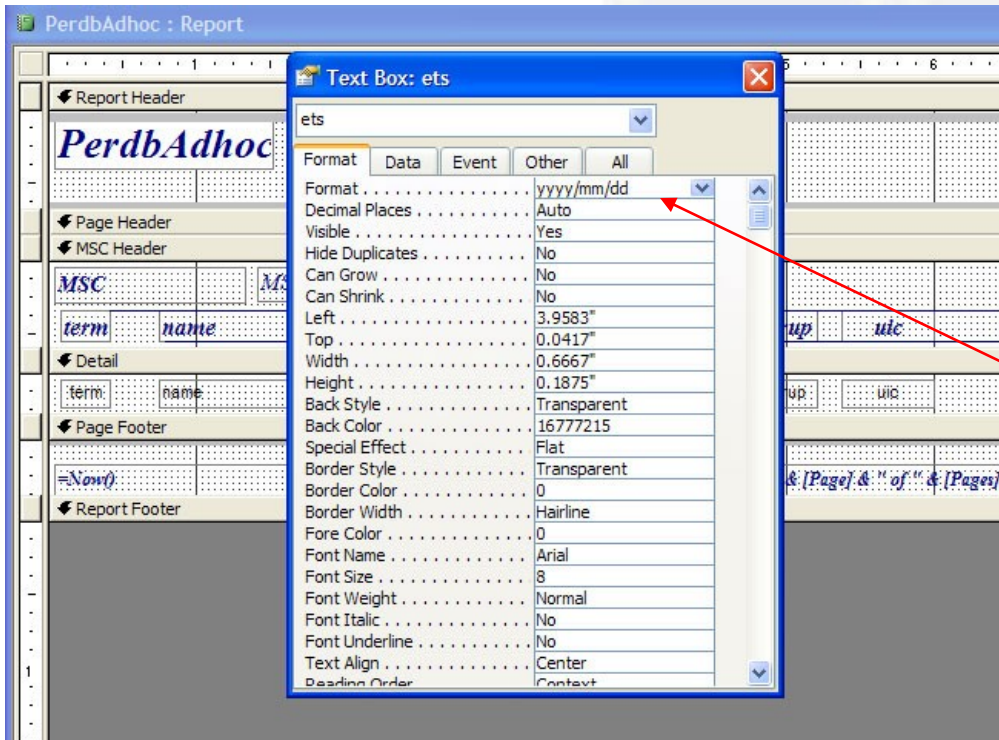
mm/dd/yyyy

Type in Format text box:

• **yyyy/mm/dd**

- After edit, field shows:
yyyy/mm/dd

For SSN try
adding this into input mask
box located in the data tab
000\ -00\ -0000;0;#



Create a Basic Retention Database Using MS Access (Reports)

SHAZAM BATMAN!

PerdbAdhoc

PerdbAdhoc

MSC 130TH EN BDE

<i>term</i>	<i>name</i>	<i>grade</i>	<i>basd</i>	<i>ets</i>	<i>erup</i>	<i>uic</i>
1	COLE JUSTIN TIMOTHY	04	2002/06/20	2006/11/21	10	WHDLAA
1	ELLIS NATHANIEL RICCO	04	2002/06/06	2006/12/15	10	WHDLAA
1	STATON BRANDY SHUNT	04	2002/09/18	2006/12/21	10	WHDLAA
1	MIGLIORE ANDREA PATRI	05	2003/03/18	2007/01/02	10	WHDLAA
1	LAWSON ANTONEYO DAN	04	2002/07/09	2007/01/02	10	WHDLAA
1	TUCKER WILLIAM ALEXAN	05	2001/09/17	2007/01/02	10	WHDLAA
1	RAMSEY JACOB TRAVIS	05	2003/06/01	2007/01/02	10	WHDLAA
1	MOON JASON RASHAN	05	2003/05/01	2007/04/30	10	WHDLAA
1	STATON TYSHAWN DWAY	04	2003/07/18	2007/07/17	10	WHDLAA
1	TRAYWICK JOSEPH WILLI	04	2003/12/14	2007/07/27	10	WHDLAA

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Fiendishly Clever Reportsboy

???



Create a Basic Retention Database Using MS Access (Reports)

PERDB_Query_Crosstab

PERDB_Query_Crosstab

Unit	Category		
	Initial Term Soldiers	Mid-Term Soldiers	Career Soldiers
MSC	1	2	3
130TH EN BDE	12	5	1
201ST MI BDE	6	1	1
29TH SIG BN	150	48	5
3/2 INF (SBCT)	256	52	21
4/2 INF (SBCT)	72	32	9
42ND MP BDE	46	4	12
5/2 INF (SBCT)			2
555th CSB	176	63	17
593rd CSG	144	53	39
62nd Med	64	17	6
66TH AVN	46	17	8
STB	19	9	9
TEAM LEWIS	1		7
USAG	1		1
I Corps Totals----->	993	301	138
I Corps Aggregate Total	1420		

Page: 1

- You can also prepare Summary reports using your crosstab queries as the input for the report

Create a Basic Retention Database Using MS Access (Reports)

Query Syntax

AfsNow: (Date()-[basd])/365.25
AfsAtEts: ([ets]-[basd])/365.25
AfsAtFyBeg: (#10/1/2006#-[basd])/365.25
Age: (Now()-[dob])/365.25
Age: DateDiff("yyyy",[dob],Now())
Crosses 6 Yrs: DateAdd("yyyy",6,[BASD])
Crosses 10 Yrs: DateAdd("yyyy",10,[BASD])
Crosses 14 Yrs: DateAdd("yyyy",14,[BASD])
Between "04" And "09"
"10"
"2"
"COMP"

Goes in?

New Field of Query in Design View
New Field of Query in Design View
New Field of Query in Design View
New Field of Query in Design View
New Field of Query in Design View
New Field of Query in Design View
New Field of Query in Design View
New Field of Query in Design View
Criteria Row in GRADE Field of Design View
Criteria Row in ERUP Field of Design View
Criteria Row in OPTION Field of Design View
Criteria Row in RESERVATION STATUS Field of Design View

Good For?

Total Active Service Today
Total Active Service At ETS
Total Active Service At Beginning of FY
Age
Age Rounded Up
Date Crosses 6 years
Date Crosses 10 years
Date Crosses 14 years
Finds All Soldiers Between E4 and E9
Finds All Soldiers Between With 10 ERUP
Finds All Soldiers Reenlisted for E2
Finds All Soldiers in COMP Status

**Sweet
Extras
QUERIES**

**VOTE
FOR
COMPETENCE**

Create a Basic Retention Database Using MS Access (Reports)

Report Syntax (Entered in Design View)

=nz(Sum([3]))
=nz(Sum([1]+[2]+[3]))
=Sum([1])
=Switch([term]=1,"Initial Term Soldiers",[term]=2,"Mid-Term Soldiers",[term]=3,"Career Soldiers")
=Count([term])

Goes in?

Good For?

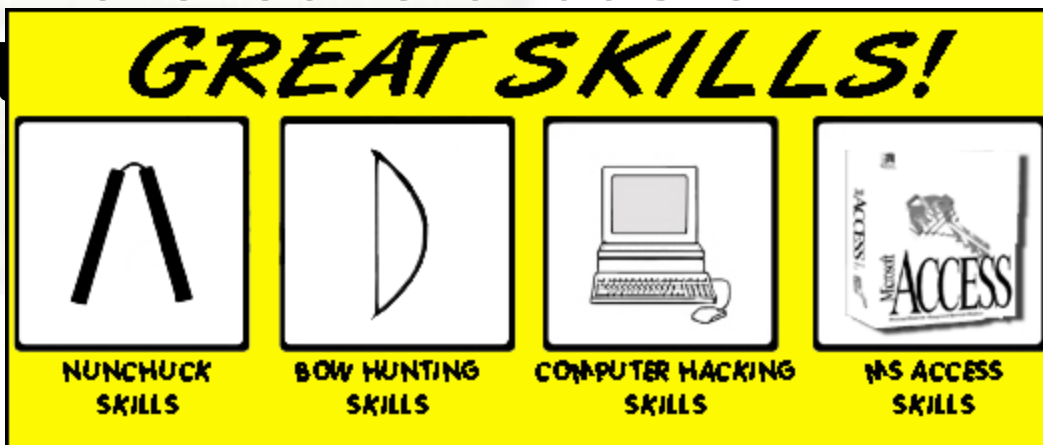
Report Footer whatever you want to count I.E. 1 or 2 or 3
Report Footer Sums all numbers I.E. Aggregate total eligibles by term
Report Footer whatever you want to count I.E. 1 or 2 or 3
Term Header Changes number 1, 2, or 3 into Category name
Term Footer Counts Term

**Sweet
Extras
REPORTS**

**VOTE
FOR
COMPETENCE**

Summary

- Defined the basic components of a Relational Database Management System (RDBMS)
- Learned how to extract and save CSV file from the RETAIN system
- Learned how to create a basic retention data



Summary

- Learned about Objects such as Tables, Queries, and Reports
- Spent hands on time with Tables, Queries, and Reports
- Learned advanced Access skills





Questions?